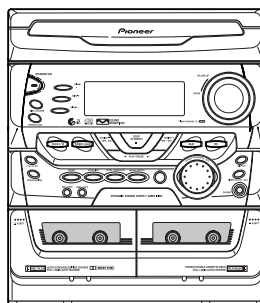


Service Manual

Pioneer



• XR-A670

ORDER NO.
RRV2188

STEREO CD CASSETTE DECK RECEIVER

XR-A670 XR-A370

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model		Power Requirement	Remarks
	XR-A670	XR-A370		
MYXJ	○	○	AC220-230V	
NVXJ	○	○	AC230V	
KUCXJ	○	○	AC120V	

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

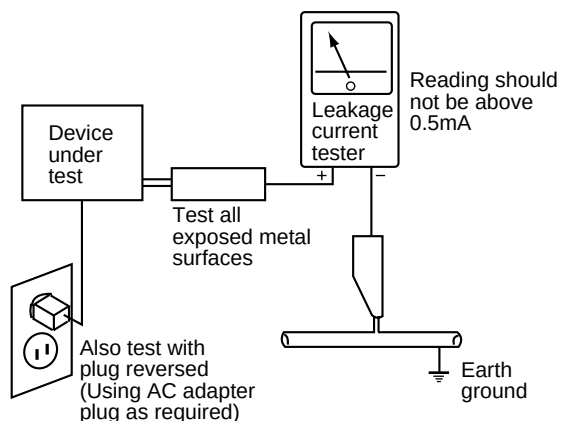
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a Δ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

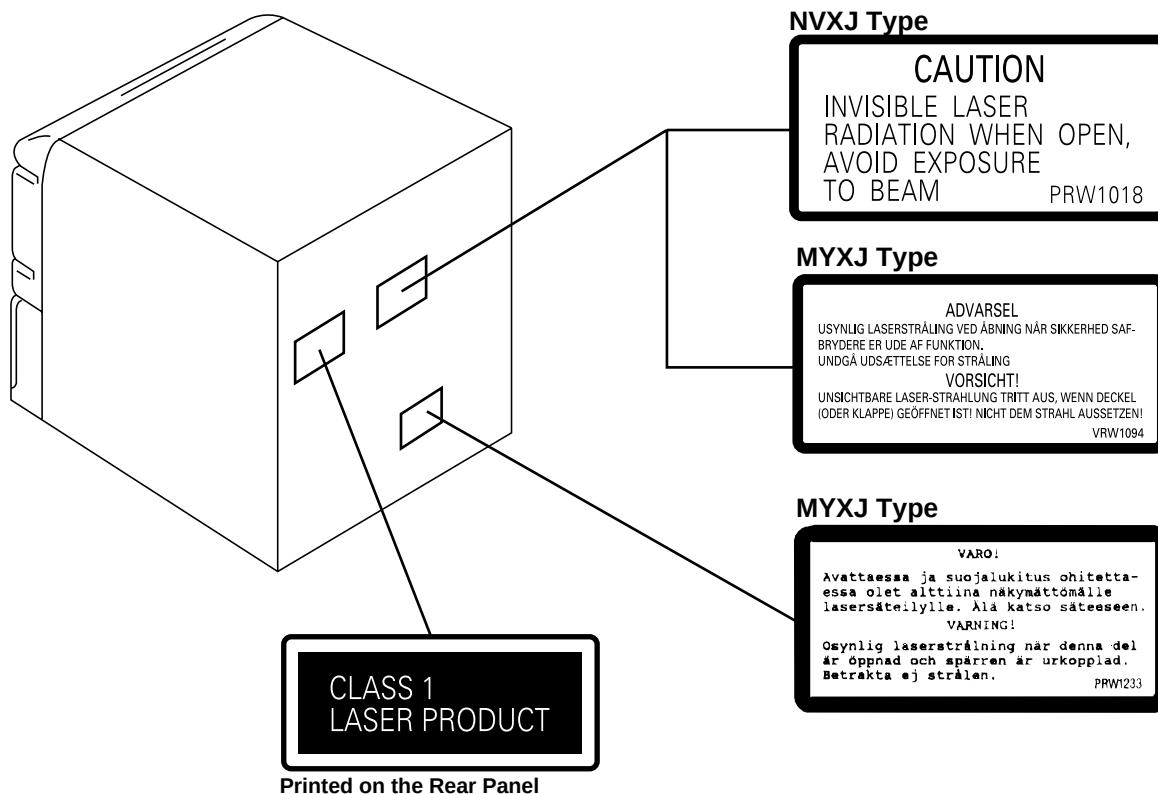
— IMPORTANT —

THIS PIONEER APPARATUS CONTAINS
LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS
SHOULD BE DONE BY A SPECIALLY
INSTRUCTED PERSON.

— LASER DIODE CHARACTERISTICS —

MAXIMUM OUTPUT POWER: 5 mW
WAVELENGTH: 780 nm to 785 nm

LABEL CHECK (For MYXJ and NVXJ Types)



— Additional Laser Caution —

1. Laser Interlock Mechanism

The position of the switch (S9501) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S9501) is pressed physically.

Thus, the interlock will no longer function if the switch (S9501) is released physically and deliberately.

The interlock also does not function in the test mode *. Laser diode oscillation will continue, if pin 1 of CXA1821M (IC8101) on the CD ASSY mounted on the \$M Loading Mechanism assembly is connected to GND, or else the terminals of Q8101 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* : Refer to page 66.

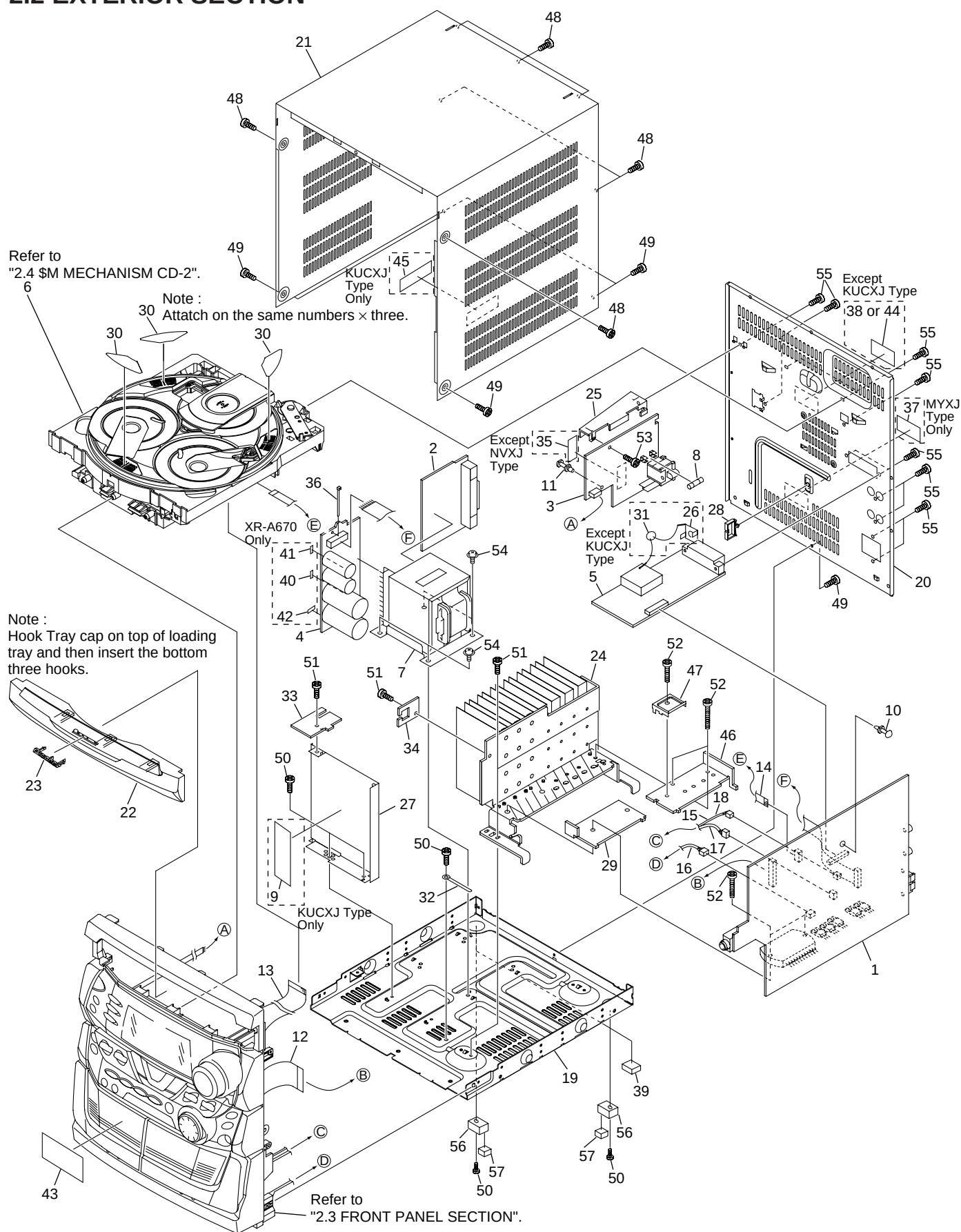
2.1 PACKING



(2) CONTRAST TABLE

Mark	No.	Symbol and Description	Part No.						Remarks
			XR-A670 /MYXJ	XR-A670 /INVXJ	XR-A670 /KUCXJ	XR-A370 /MYXJ	XR-A370 /INVXJ	XR-A370 /KUCXJ	
NSP	1	Power Cord	ADG1154	ADG1156	ADG7022	ADG1154	ADG1156	ADG7022	
	2	FM Antenna	ADH7005	ADH7005	ADH7004	ADH7005	ADH7005	ADH7004	
	10	Packing Case	XHD3090	XHD3090	XHD3091	XHD3081	XHD3081	XHD3082	
	11	Warranty Card	ARY7022	ARY7022	ARY7033	ARY7022	ARY7022	ARY7033	
	13	Operating Instructions (English/French)	XRE3023	XRE3023	XRE3024	XRE3023	XRE3023	XRE3024	
	14	Operating Instructions (Italian/Dutch/German)	XRC3014	Not used	Not used	XRC3014	Not used	Not used	
	15	Operating Instructions (Portuguese/Swedish/Spanish)	XRC3015	Not used	Not used	XRC3015	Not used	Not used	
⚠	17	Fuse (T5A)	Not used	AEK7001	Not used	Not used	AEK7001	Not used	
NSP	18	Polyethylene Bag	Not used	AHG7033	Not used	Not used	AHG7033	Not used	

2.2 EXTERIOR SECTION



(1) EXTERIOR SECTION PARTS LIST

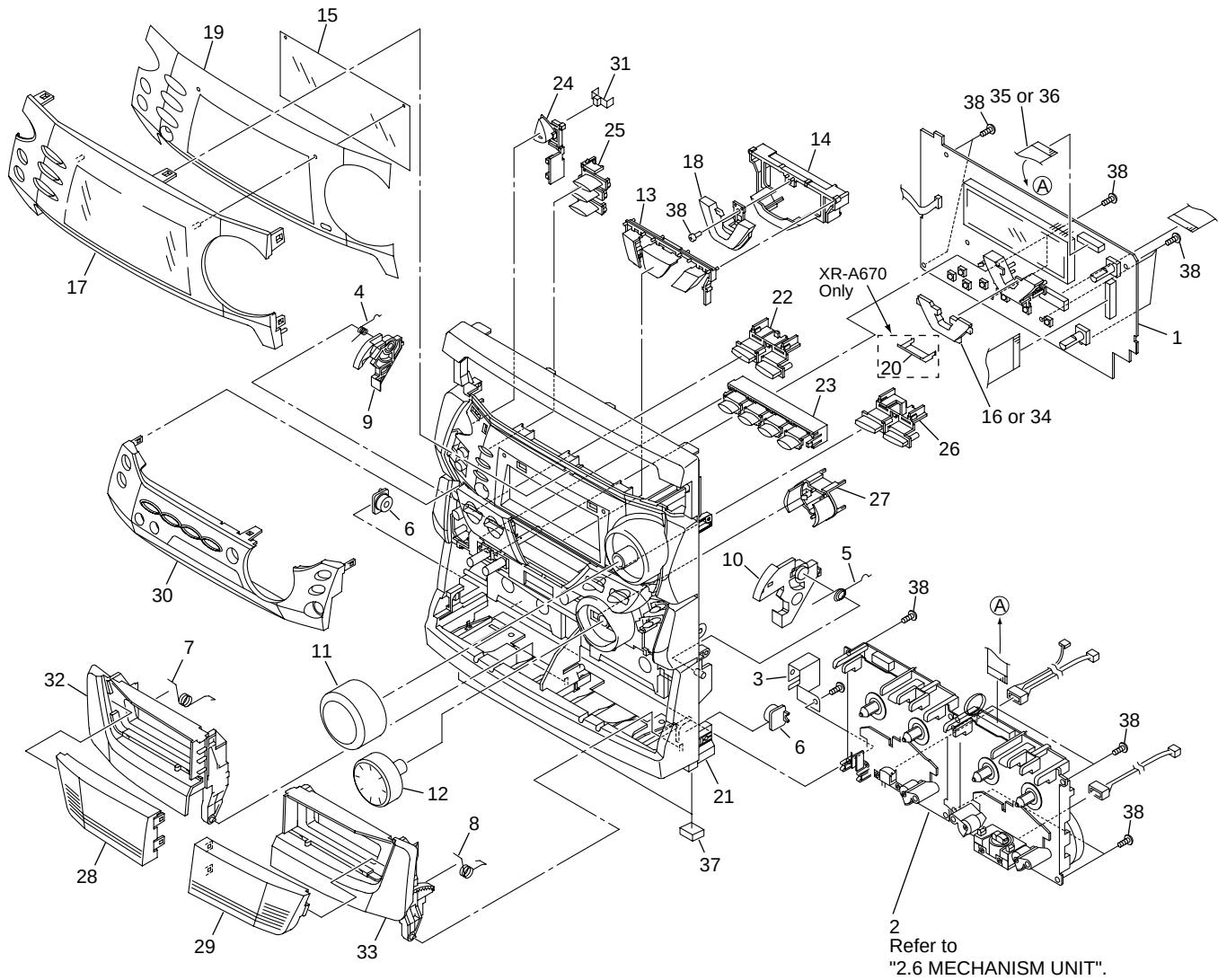
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	AF Assy	See Contrast table (2)		20	Rear Panel	See Contrast table (2)
	2	PRIMARY Assy	See Contrast table (2)		21	Bonnet Case	See Contrast table (2)
	3	SUB TRANS Assy	See Contrast table (2)		22	Tray Cap	See Contrast table (2)
	4	SECONDARY Assy	See Contrast table (2)		23	Pioneer Badge	XAM3001
	5	FM/AM TUNER Module	See Contrast table (2)		24	Heat Sink	See Contrast table (2)
NSP	6	\$M Mechanism CD-2	See Contrast table (2)		25	PCB Bracket	XMR3007
△	7	Power Transformer	See Contrast table (2)		26	Earth Plate	See Contrast table (2)
△	8	Fuse (FU1)	See Contrast table (2)		27	Shield Plate	XNG3017
NSP	9	Fuse Caution Label	See Contrast table (2)		28	Wire Clip A	XEC3003
	10	Card Spacer	XEC3008		29	Sub Heat Sink B	XNH3012
	11	Card Spacer	XEC3011		30	Disc Label	XAX3127
	12	25P 120 Flexible Cable/60V (AF CN5101 ↔ DISPLAY CN5503)	XDD3034		31	Ceramic Capacitor	See Contrast table (2)
	13	19P 190 Flexible Cable/30V (CD CN8201 ↔ DISPLAY CN5501)	XDD3038	NSP	32	Cord Clamper	RNH-184
				NSP	33	Support Assy	XWZ3205
					34	Cable Holder	XWZ3206
	14	08P 230 Flexible Cable/30V (AF CN1052 ↔ CD CN8204)	XDD3039	NSP	35	Fuse Card	See Contrast table (2)
	15	Connector Assy 5P (AF CN2301, CN2302 ↔ DECK)	See Contrast table (2)		36	Binder	ZCA-SKB90BK
	16	Connector Assy 3P (AF CN2303 ↔ DECK)	XDE3021		37	Caution Label HE	See Contrast table (2)
					38	Caution Label	See Contrast table (2)
					39	Cushion Leg B	XEB3009
	17	Connector Assy 3P (AF CN2301 ↔ DECK)	See Contrast table (2)		40	ICP Label	See Contrast table (2)
	18	Connector Assy 2P (AF CN2302 ↔ DECK)	See Contrast table (2)		41	ICP Label	See Contrast table (2)
					42	ICP Label	See Contrast table (2)
NSP	19	Chassis	XNA3004	NSP	43	Getter	See Contrast table (2)
					44	Caution Label	See Contrast table (2)
					45	65 Label	See Contrast table (2)
				NSP	46	Sub Heat Sink A	XNH3011
				NSP	47	FET Bracket	XNG3016
					48	Screw	BPZ30P080FZK
					49	Screw	VBT30P080FZK
					50	Screw	BBZ30P060FMC
					51	Screw	BBZ30P080FMC
					52	Screw	BBZ30P180FMC
					53	Screw	BPZ30P080FMC
					54	Screw	ASZ40P060FMC
					55	Screw	BPZ30P100FZK
					56	Cushion Leg A	XEB3008
					57	Leg	XMR3012

(2) CONTRAST TABLE

XR-A670/MYXJ, NVXJ, KUCXJ, XR-A370/MYXJ, NVXJ and KUCXJ are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.						Remarks
			XR-A670 /MYXJ	XR-A670 /NVXJ	XR-A670 /KUCXJ	XR-A370 /MYXJ	XR-A370 /NVXJ	XR-A370 /KUCXJ	
NSP △ △ △ △ △ NSP	1	AF Assy	XWZ3200	XWZ3200	XWZ3199	XWZ3197	XWZ3197	XWZ3196	
	2	PRIMARY Assy	XWZ3213	XWZ3213	XWZ3224	XWZ3225	XWZ3225	XWZ3224	
	3	SUB TRANS Assy	XWZ3208	XWZ3208	XWZ3227	XWZ3228	XWZ3228	XWZ3227	
	4	SECONDARY Assy	XWZ3221	XWZ3221	XWZ3221	XWZ3220	XWZ3220	XWZ3220	
	5	FM/AM TUNER Module	AXQ7068	AXQ7068	AXQ7065	AXQ7068	AXQ7068	AXQ7065	
	6	\$M Mechanism CD-2	XXA3012	XXA3012	XXA3012	XXA3009	XXA3009	XXA3009	
	7	Power Transformer	XTS3031	XTS3031	XTS3032	XTS3016	XTS3016	XTS3017	
	8	Fuse (FU1 : T5A)	AEK1061	AEK1061	Not used	Not used	Not used	Not used	
	8	Fuse (FU1 : 5A)	Not used	Not used	Not used	Not used	Not used	REK1083	
	8	Fuse (FU1 : 6.3A)	Not used	Not used	REK1085	Not used	Not used	Not used	
	8	Fuse (FU1 : T4A)	Not used	Not used	Not used	AEK1060	AEK1060	Not used	
	9	Fuse Caution Label	Not used	Not used	XAX3157	Not used	Not used	XAX3122	
	15	Connector Assy 5P	XDE3020	XDE3020	XDE3020	XDE3020	XDE3020	Not used	
	17	Connector Assy 3P	Not used	Not used	Not used	Not used	Not used	XDE3022	
	18	Connector Assy 2P	Not used	Not used	Not used	Not used	Not used	XDE3023	
	20	Rear Panel	XNC3039	XNC3039	XNC3040	XNC3034	XNC3034	XNC3035	
	21	Bonnet Case	XZN3098	XZN3098	XZN3098	XZN3097	XZN3097	XZN3098	
	22	Tray Cap	XAK3091	XAK3091	XAK3091	XAK3085	XAK3085	XAK3091	
NSP	24	Heat Sink	XNH3010	XNH3010	XNH3010	XNH3009	XNH3009	XNH3009	
	26	Earth Plate	XNG3015	XNG3015	Not used	XNG3015	XNG3015	Not used	
	31	Ceramic Capacitor	CKPUYB102K50	CKPUYB102K50	Not used	CKPUYB102K50	CKPUYB102K50	Not used	
	35	Fuse Card	AAX7098	Not used	AAX2374	Not used	Not used	AAX7097	
	37	Caution Label HE	PRW1233	Not used	Not used	PRW1233	Not used	Not used	
	38	Caution Label	VRW1094	Not used	Not used	VRW1094	Not used	Not used	
NSP	40	ICP Label	XAX3121	XAX3121	XAX3121	Not used	Not used	Not used	
	41	ICP Label	XAX3153	XAX3153	XAX3153	Not used	Not used	Not used	
	42	ICP Label	XAX3158	XAX3158	XAX3158	Not used	Not used	Not used	
	43	Getter	XAX3142	XAX3142	XAX3143	XAX3137	XAX3137	XAX3138	
	44	Caution Label	Not used	PRW1018	Not used	Not used	PRW1018	Not used	
	45	65 Label	Not used	Not used	ORW1069	Not used	Not used	ORW1069	

2.3 FRONT PANEL SECTION



(1) FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	DISPLAY Assy	See Contrast table (2)		21	Front Panel	See Contrast table (2)
	2	Mechanism Unit	See Contrast table (2)		22	Function Button A	XZN3087
	3	Earth Plate B	XNG3023		23	S.C. Button	XZN3080
	4	Ratch Spring_L	ABH7130		24	POWER Button	See Contrast table (2)
	5	Ratch Spring_R	ABH7131		25	CD Button	XZN3079
	6	Damper Assy	AXA7052		26	Function Button B	XZN3102
	7	Door Spring_L	XBH3001		27	JOG Lens	XZN3082
	8	Door Spring_R	XBH3002		28	Deck Lens L	XZN3077
	9	Ratch Mold_L	XMR3001		29	Deck Lens R	XZN3078
	10	Ratch Mold_R	XMR3002		30	Sub Panel	XZN3093
	11	Volume Knob	See Contrast table (2)		31	ST Lens	XZN3101
	12	JOG Knob	See Contrast table (2)		32	Deck Door_L	See Contrast table (2)
	13	V Button A	See Contrast table (2)		33	Deck Door_R	See Contrast table (2)
	14	V Button B	See Contrast table (2)		34	V Cap	See Contrast table (2)
	15	FL Filter	XAK3089		35	17P 180 Flexible Cable/60V (DISPLAY CN2903 ↔ DECK CN2905)	See Contrast table (2)
	16	LT Conductor	See Contrast table (2)		36	15P 180 Flexible Cable/60V (DISPLAY CN2903 ↔ DECK CN2905)	See Contrast table (2)
	17	Display Panel	See Contrast table (2)		37	Cushion Leg A	XEB3008
	18	V Lens	XAK3117		38	Screw	BPZ30P080FMC
	19	FL Cover	See Contrast table (2)				
	20	LED Cover	See Contrast table (2)				

(2) CONTRAST TABLE

XR-A670/MYXJ, NVXJ, KUCXJ, XR-A370/MYXJ, NVXJ and KUCXJ are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.						Remarks
			XR-A670 /MYXJ	XR-A670 /NVXJ	XR-A670 /KUCXJ	XR-A370 /MYXJ	XR-A370 /NVXJ	XR-A370 /KUCXJ	
	1	DISPLAY Assy	XWZ3215	XWZ3215	XWZ3214	XWZ3210	XWZ3210	XWZ3209	
	2	Mechanism Unit	XYM3010	XYM3010	XYM3010	XYM3010	XYM3010	XYM3008	
	11	Volume Knob	XAA3013	XAA3013	XAA3013	XAA3011	XAA3011	XAA3013	
	12	JOG Knob	XAA3014	XAA3014	XAA3014	XAA3012	XAA3012	XAA3014	
	13	V Button A	XAD3034	XAD3034	XAD3034	XAD3025	XAD3025	XAD3034	
	14	V Button B	XAD3039	XAD3039	XAD3039	XAD3038	XAD3038	XAD3039	
	16	LT Conductor	XAK3090	XAK3090	XAK3090	Not used	Not used	Not used	
	17	Display Panel	XAK3112	XAK3112	XAK3113	XAK3078	XAK3078	XAK3108	
	19	FL Cover	XAK3124	XAK3124	XAK3088	XAK3124	XAK3124	XAK3088	
	20	LED Cover	XMR3009	XMR3009	XMR3009	Not used	Not used	Not used	
	21	Front Panel	XMB3023	XMB3023	XMB3023	XMB3022	XMB3022	XMB3023	
	24	POWER Button	XAD3027	XAD3027	XAD3033	XAD3022	XAD3022	XAD3027	
	30	Sub Panel	XAK3105	XAK3105	XAK3106	XAK3079	XAK3079	XAK3080	
	32	Deck Door_L	XAN3015	XAN3015	XAN3015	XAN3013	XAN3013	XAN3019	
	33	Deck Door_R	XAN3016	XAN3016	XAN3016	XAN3014	XAN3014	XAN3016	
	34	V Cap	Not used	Not used	Not used	XAK3083	XAK3083	XAK3083	
	35	17P 180 Flexible Cable/60V	XDD3032	XDD3032	XDD3032	XDD3032	XDD3032	Not used	
	36	15P 180 Flexible Cable/60V	Not used	Not used	Not used	Not used	Not used	XDD3033	

10



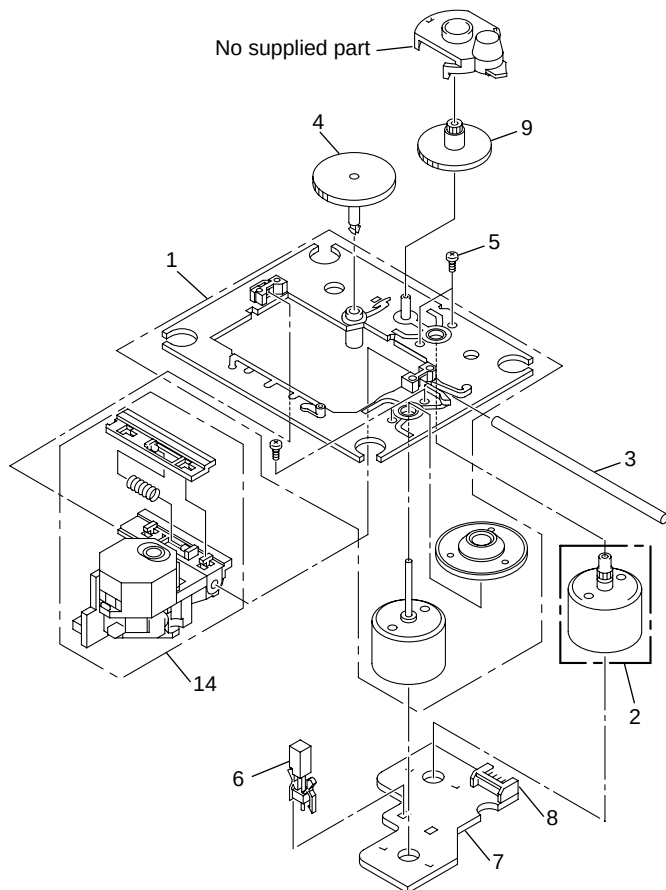
(1) \$M MECHANISM CD-2 PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	MOTOR Assy	XWZ3230		16	Gear Pulley	ANW7094
	2	SW Assy	XWZ3231		17	Lock Lever	ANW7095
	3	CD Assy	See Contrast table (2)		18	Planet Gear	ANW7096
	4	TRADE Assy	XWZ3232		19	Actuator	ANW7097
	5	Servo Spring	ABH7126		20	Mini Card Spacer	AEC7143
	6	Belt	AEB7072		21	16P 200 Flexible Cable/60V	XDD3036
	7	Clamp Magnet	AMF7001		22	Connector Assy (6P)	ADE7010
	8	Yoke	ANB7216		23	Float Rubber A	AEB7063
	9	Mecha Base	XNW3011		24	Float Rubber B	AEB7066
	10	Loading Tray	XNW3002		25	Servo Mechanism Assy	XXA3010
	11	Traverse Base	XNW3006		26	Screw	IPZ30P080FMC
	12	Rotary Tray	ANW7124		27	Carriage Motor	VXM1033
	13	Clamper	XNW3007		28	Motor Pulley	PNW1634
	14	Clamper Holder	XNW3004		29	Ha Narl	GEM1016
	15	Main Cam	ANW7093		30	Cushion Rubber	XEB3005
					31	11P 185 Flexible Cable/30V	XDD3037
					32	Cushion Rubber	XEB3007

(2) CONTRAST TABLE

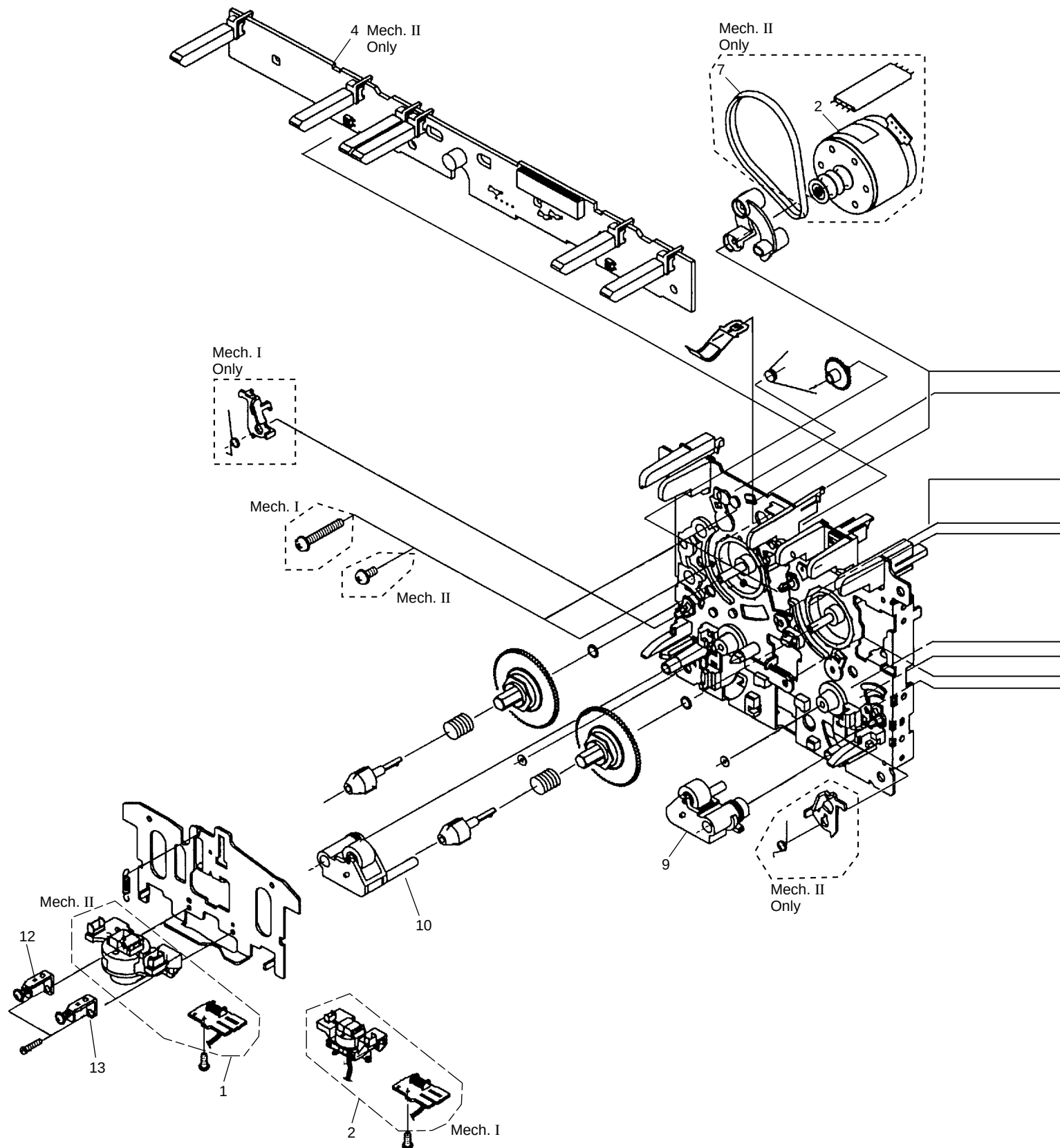
\$M Mechanism CD-2 (XXA3012) and (XXA3009) are constructed the same except for the following :

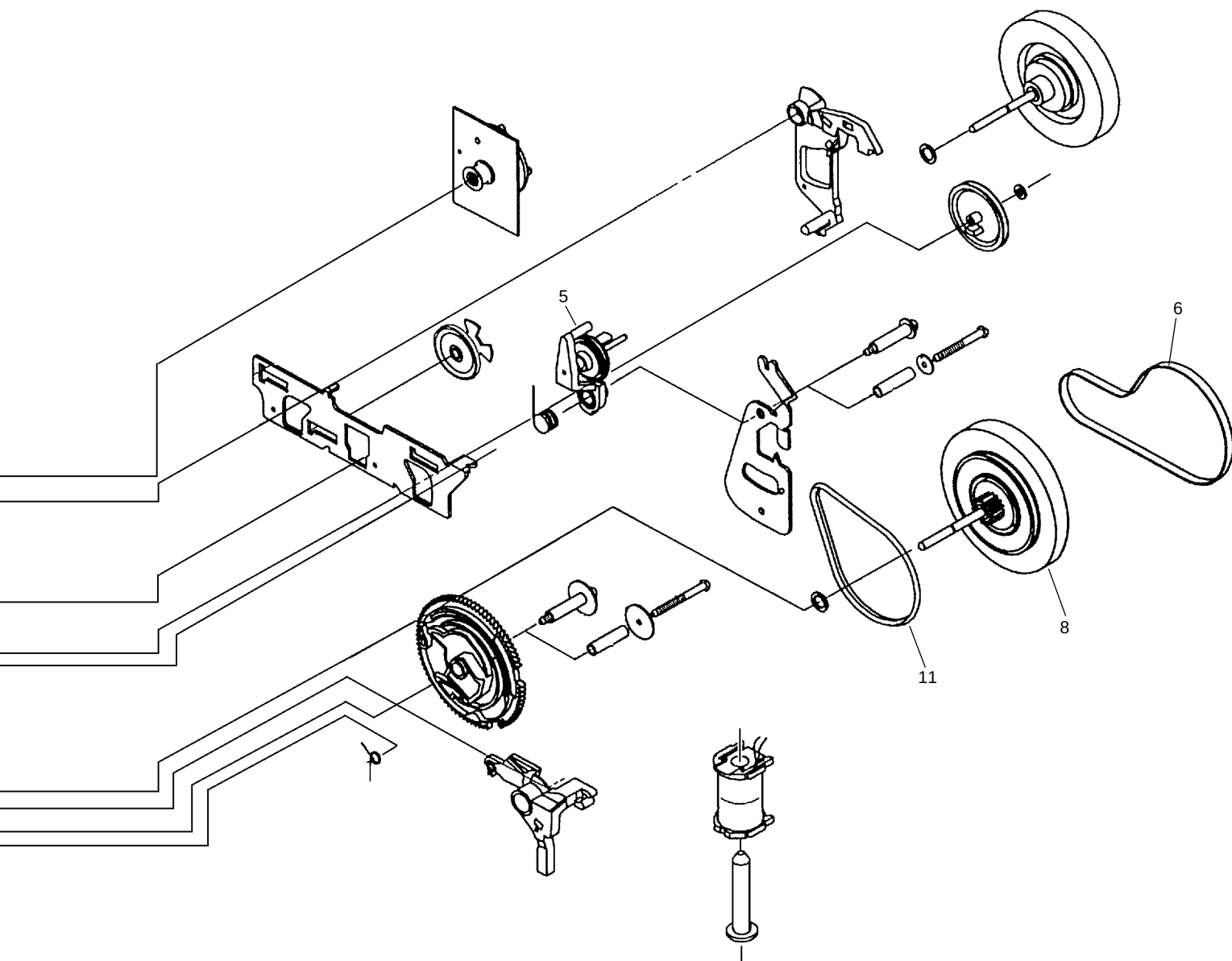
Mark	No.	Symbol and Description	Part No.		Remarks
			XXA3012 (XR-A670)	XXA3009 (XR-A370)	
	3	CD Assy	XWZ3233	XWZ3229	

2.5 SERVO MECHANISM ASSY**● SERVO MECHANISM ASSY PARTS LIST**

Mark	No.	Description	Part No.
NSP	1	Motor Chassis Assy	
	2	Motor Gear Assy	X-2625-769-(1)
	3	Sled Shaft	2-626-908-(01)
	4	Gear (A)(S)	2-625-188-(02)
NSP	5	Screw +P2*3	
	6	Leaf Switch	1-572-085-(11)
	7	Motor(6p)(S)PCB	1-639-678-(12)
	8	Connector Pin 6p	1-564-722-(11)
	9	Gear(B)(RP)	2-627-003-(01)
	10		
	11		
	12		
	13		
	14	KSS-213C(Pick-up)	8-848-483-(05)

2.6 MECHANISM UNIT





● MECHANISM UNIT PARTS LIST (XYM3010)

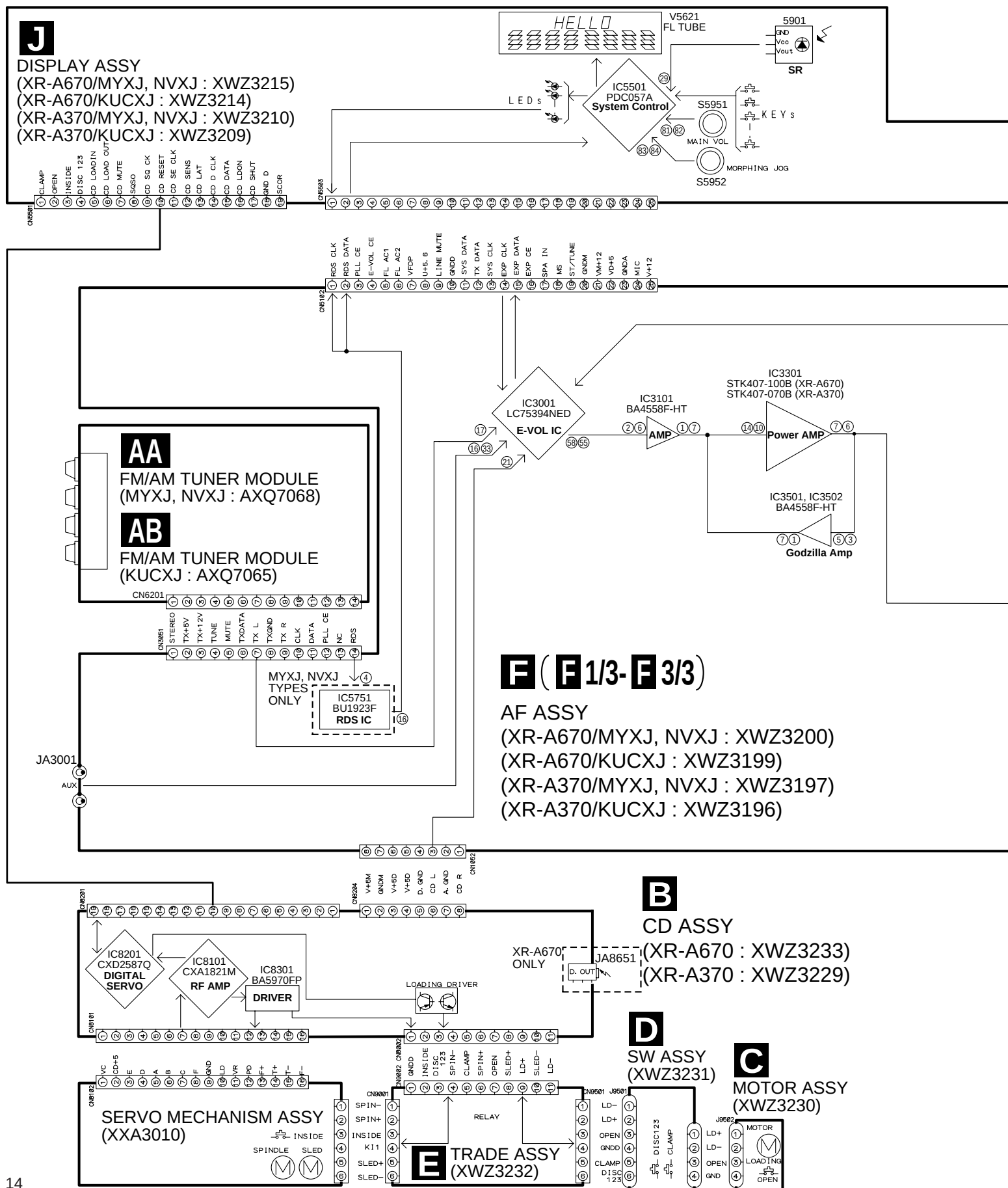
Mark	No.	Description	Part No.
	1	Plate HD BLK (Mech. II)	F513-847
	2	Plate HD BLK (Mech. I)	F513-846
	3	Motor Main BLK (Mech. II only)	F525-329
	4	PCB Control BLK	F567-630
	5	Clutch Assy BLK	F522-049
	6	Main Belt	FF19N-11
	7	Joint Belt 113 (Mech. II only)	FF19P-11
	8	Clutch Assy BLK (Mech. I)	FR25B-11
	8	Clutch Assy BLK (Mech. II)	FR24Y-11
	9	Roller Pinch BLK R	F514-129
	10	Roller Pinch BLK L	F514-130
	11	F/R Belt	FF19S-11
	12	Plate Base BLK	F512-127
	13	Plate Base BLK	F512-128

● MECHANISM UNIT PARTS LIST (XYM3008 : XR-A370/KUCXJ)

Mark	No.	Description	Part No.
	1	Plate HD BLK (Mech. II)	F513-848
	2	Plate HD BLK (Mech. I)	F513-846
	3	Motor Main BLK (Mech. II only)	F525-329
	4	PCB Control BLK	F567-631
	5	Clutch Assy BLK	F522-049
	6	Main Belt	FF19N-11
	7	Joint Belt 113 (Mech. II only)	F19N-11
	8	Clutch Assy BLK (Mech. I)	FR25B-11
	8	Clutch Assy BLK (Mech. II)	FR24Y-11
	9	Roller Pinch BLK R (Mech. II)	F514-131
	10	Roller Pinch BLK L (Mech. II)	F514-130
	11	F/R Belt	FF19S-11
	12	Plate Base BLK	F512-127
	13	Plate Base BLK	F512-128

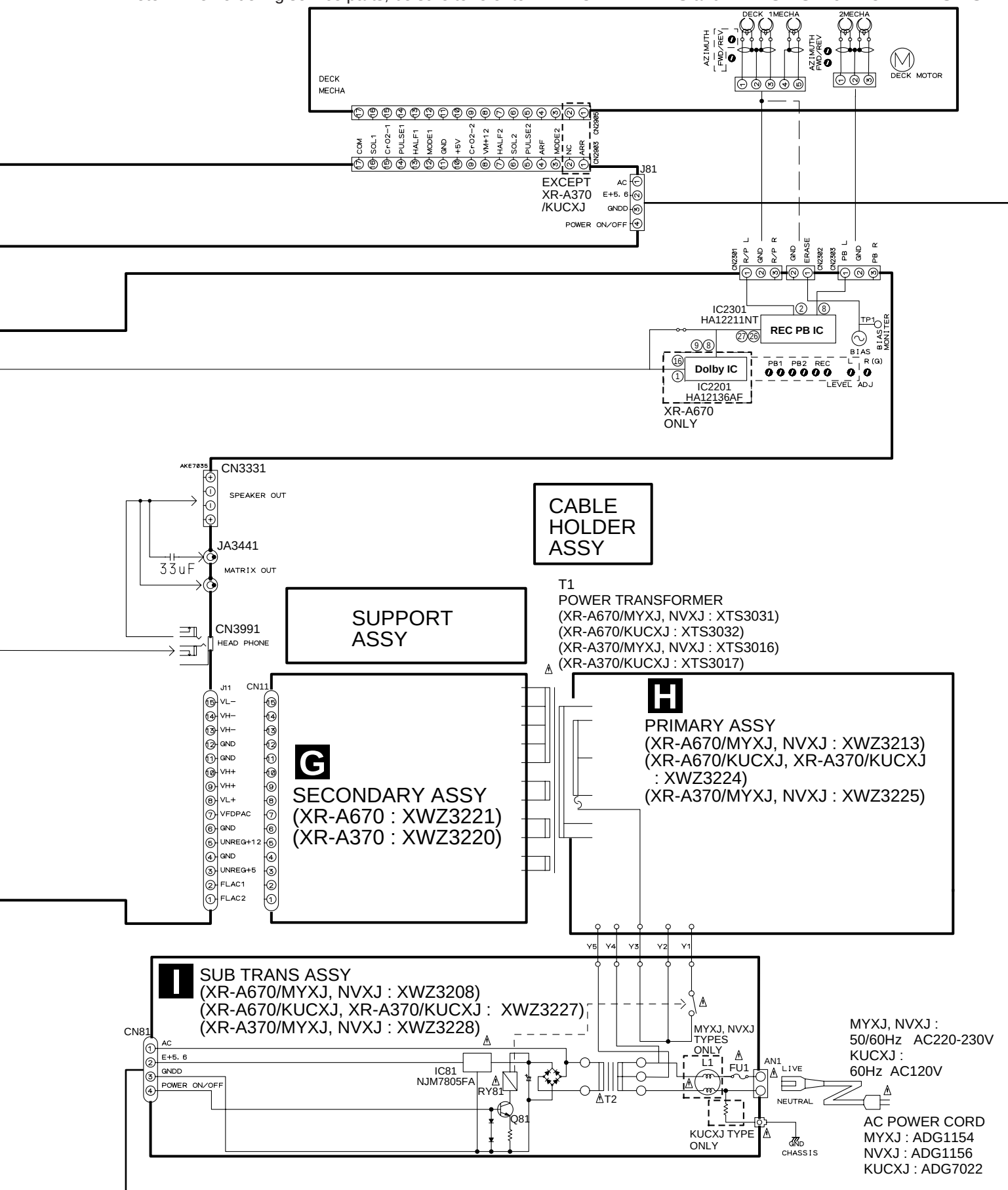
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM and OVERALL WIRING DIAGRAM



XR-A670, XR-A370

Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



A

B

C

D

E

C

- D

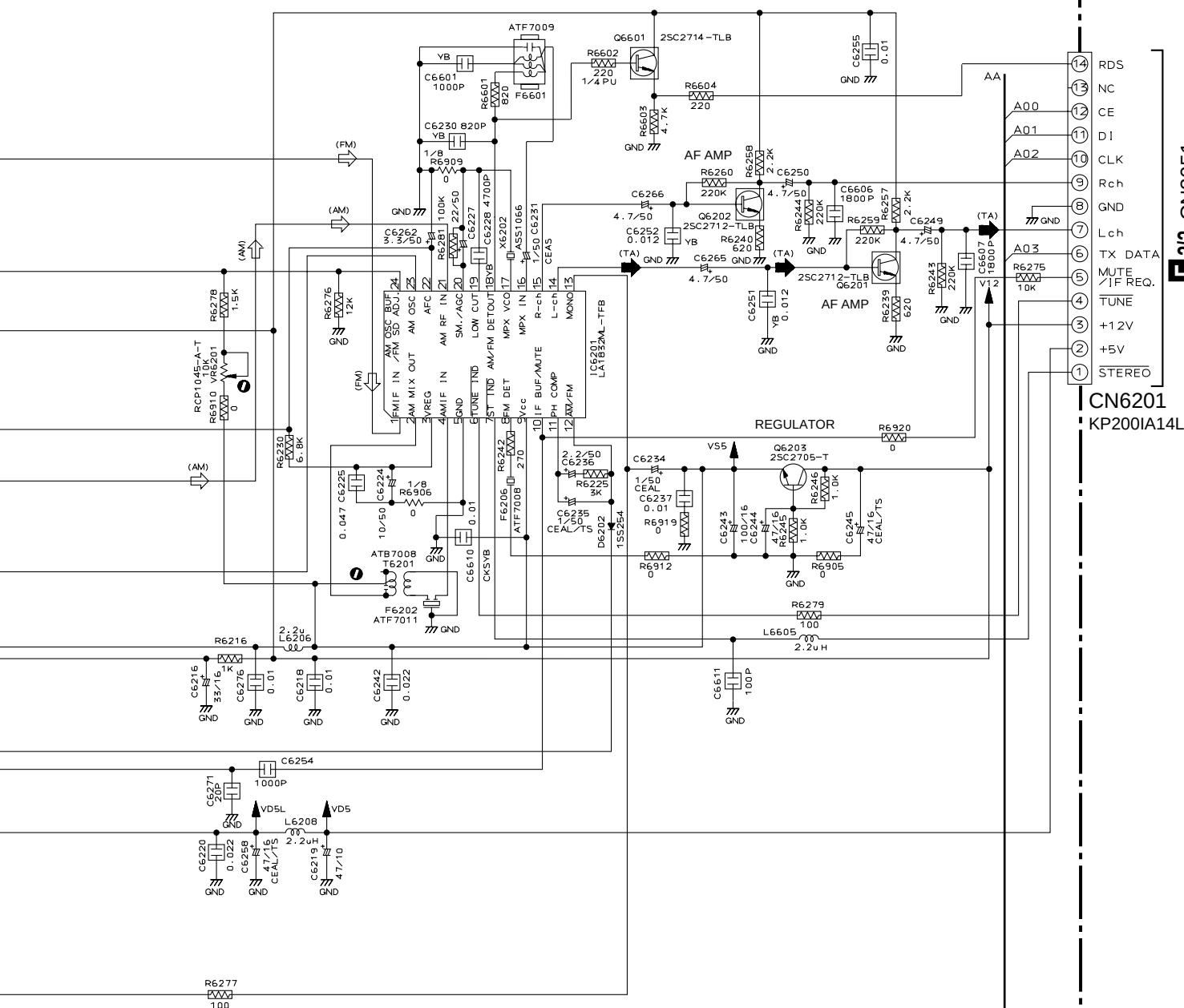
AA

- 17

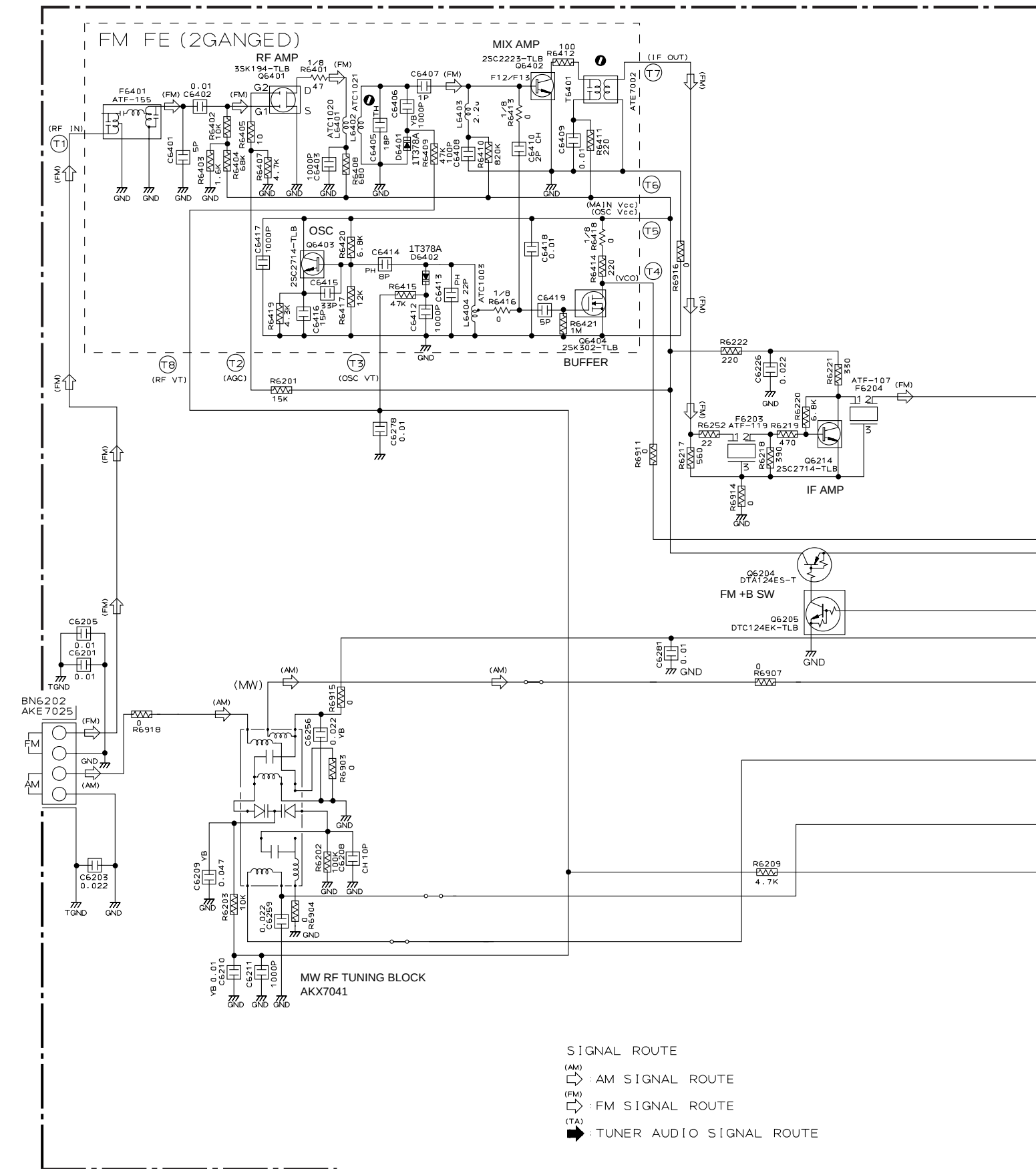
8

- 8

No mark diode is 1SS254.



3.3 FM/AM TUNER MODULE (For KUCXJ Type)



: The power supply is shown with the marked box.

(CD) : CD AUDIO SIGNAL ROUTE

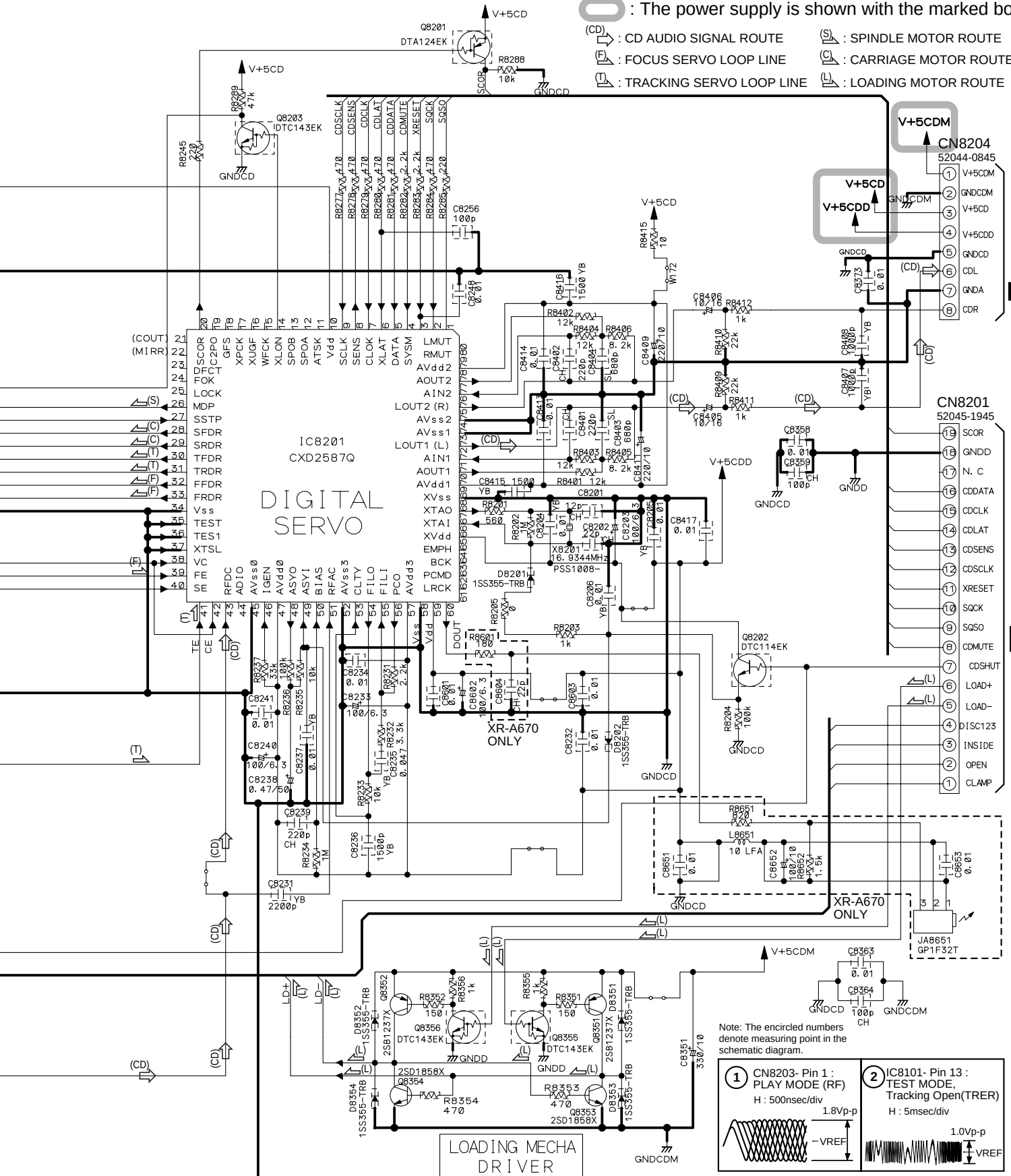
(S) : SPINDLE MOTOR ROUTE

(F) : FOCUS SERVO LOOP LINE

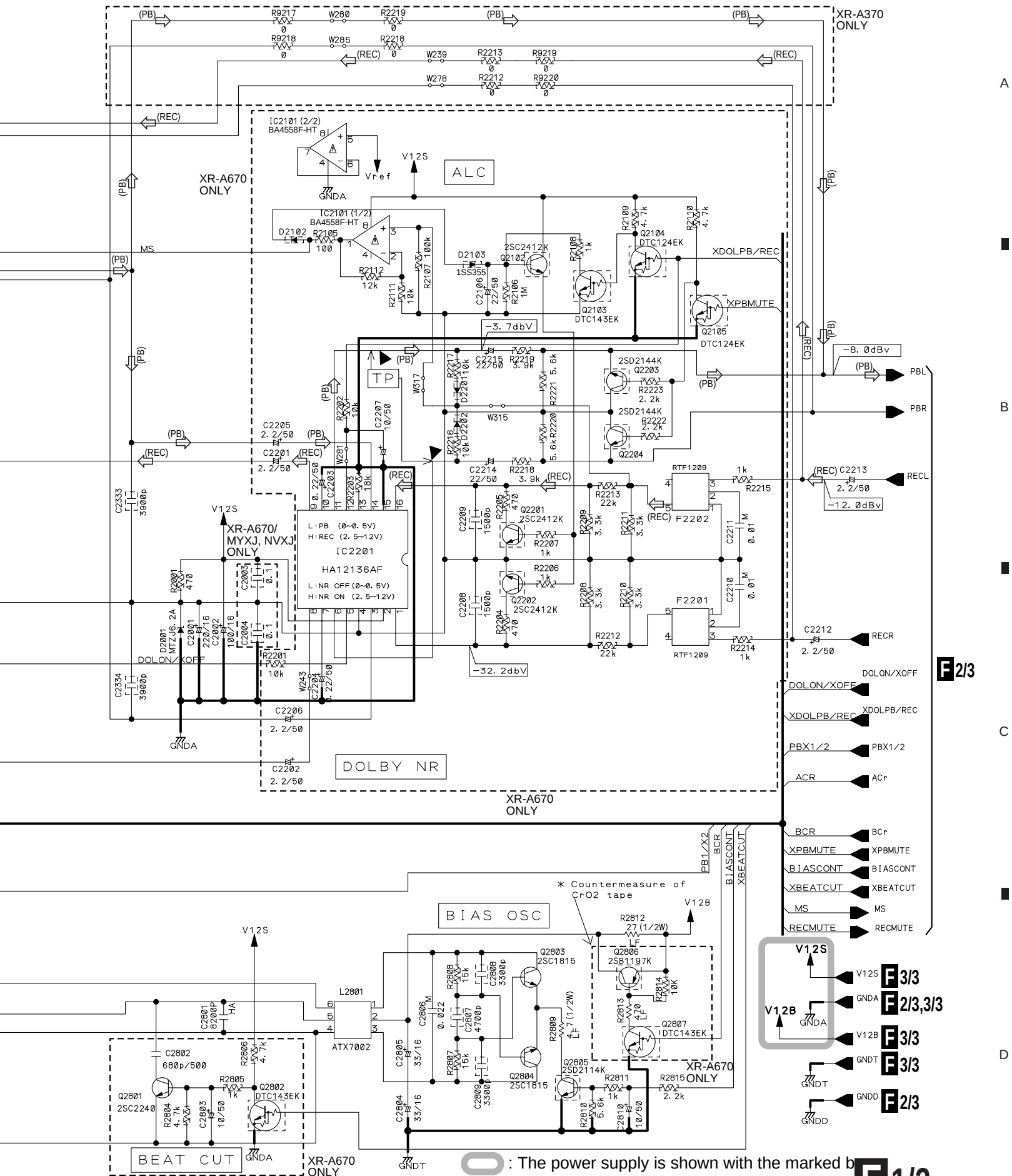
 : CARRIAGE MOTOR ROUTE

 : TRACKING SERVO LOOP L

 : LOADING MOTOR ROUTE



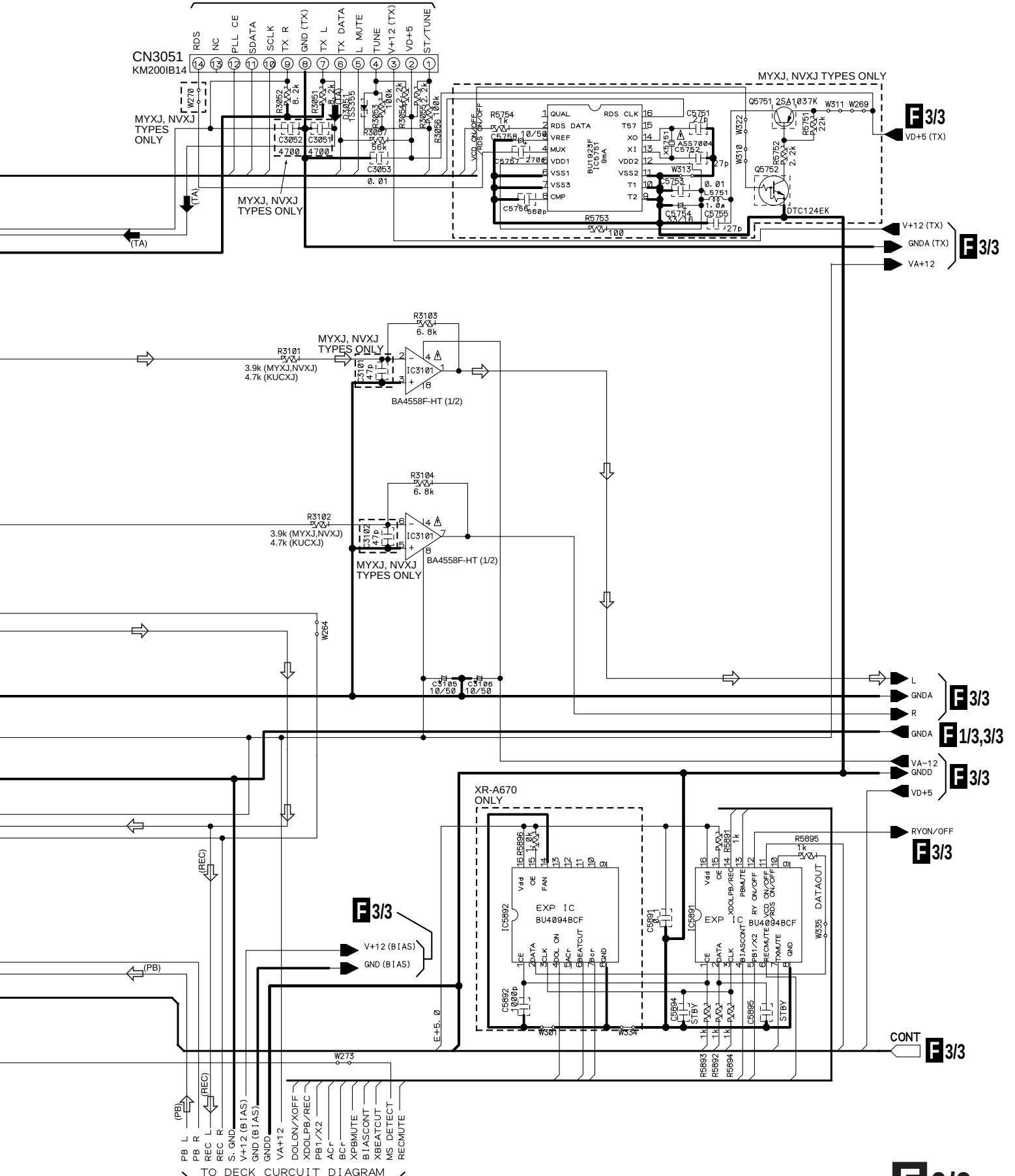
Note: The encircled numbers denote measuring point in the schematic diagram.



The power supply is shown with the marked b

AA CN6201 (MYXJ, NVXJ TYPES)

AB CN6201 (KUCXJ TYPE)



⇒: AUDIO SIGNAL ROUTE

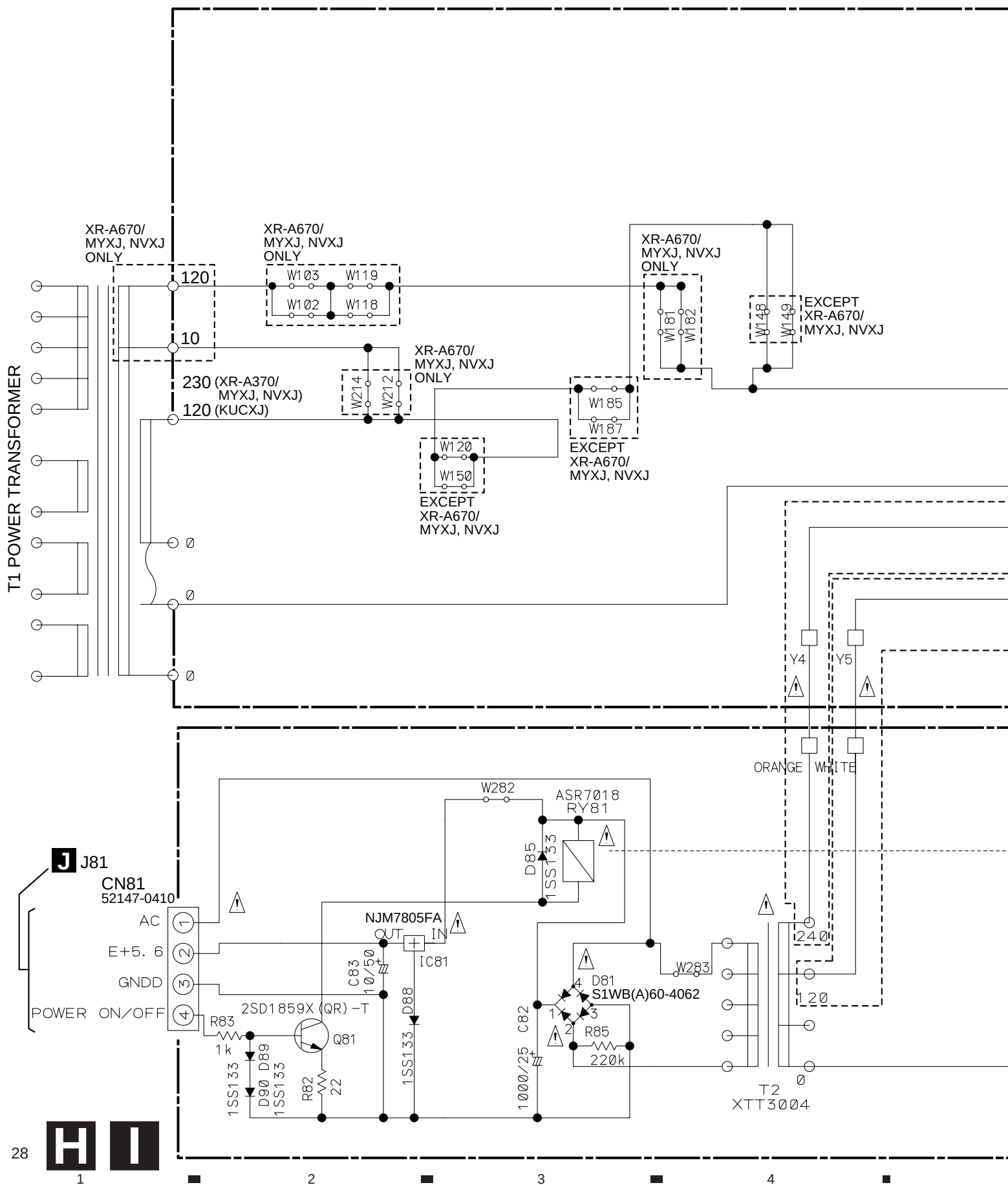
CAUTION : FOR CONTINUED PROTECTION AGAINST
RISK OF FIRE. REPLACE ONLY WITH SAME
TYPE NO. 491003 MFD, BY LITTELFUSE INC.
FOR IC31 (AEK7050: XR-A370).



D

CAUTION : FOR CONTINUED PROTECTION AGAINST
RISK OF FIRE. REPLACE ONLY WITH SAME
TYPE NO. 491005 MFD, BY LITTELFUSE INC.
FOR IC21 AND IC22 (AEK7019: XR-A370).

3.8 PRIMARY and SUB TRANS ASSYS





PRIMARY ASSY

(XR-A670/MYXJ, NVXJ : XWZ3213)

(XR-A670/KUCXJ, XR-A370/KUCXJ : XWZ3224)

(XR-A370/MYXJ, NVXJ : XWZ3225)

NOTE FOR FUSE REPLACEMENT

CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS ONLY.

Y3 BLUE	XDX3007
Y1 BROWN	XDX3008
Y4 ORANGE	XDX3009
Y2 GREY	XDX3010
Y5 WHITE	XDX3011



SUB TRANS ASSY

(XR-A670/MYXJ, NVXJ : XWZ3208)

(XR-A670/KUCXJ, XR-A370/KUCXJ

: XWZ3227)

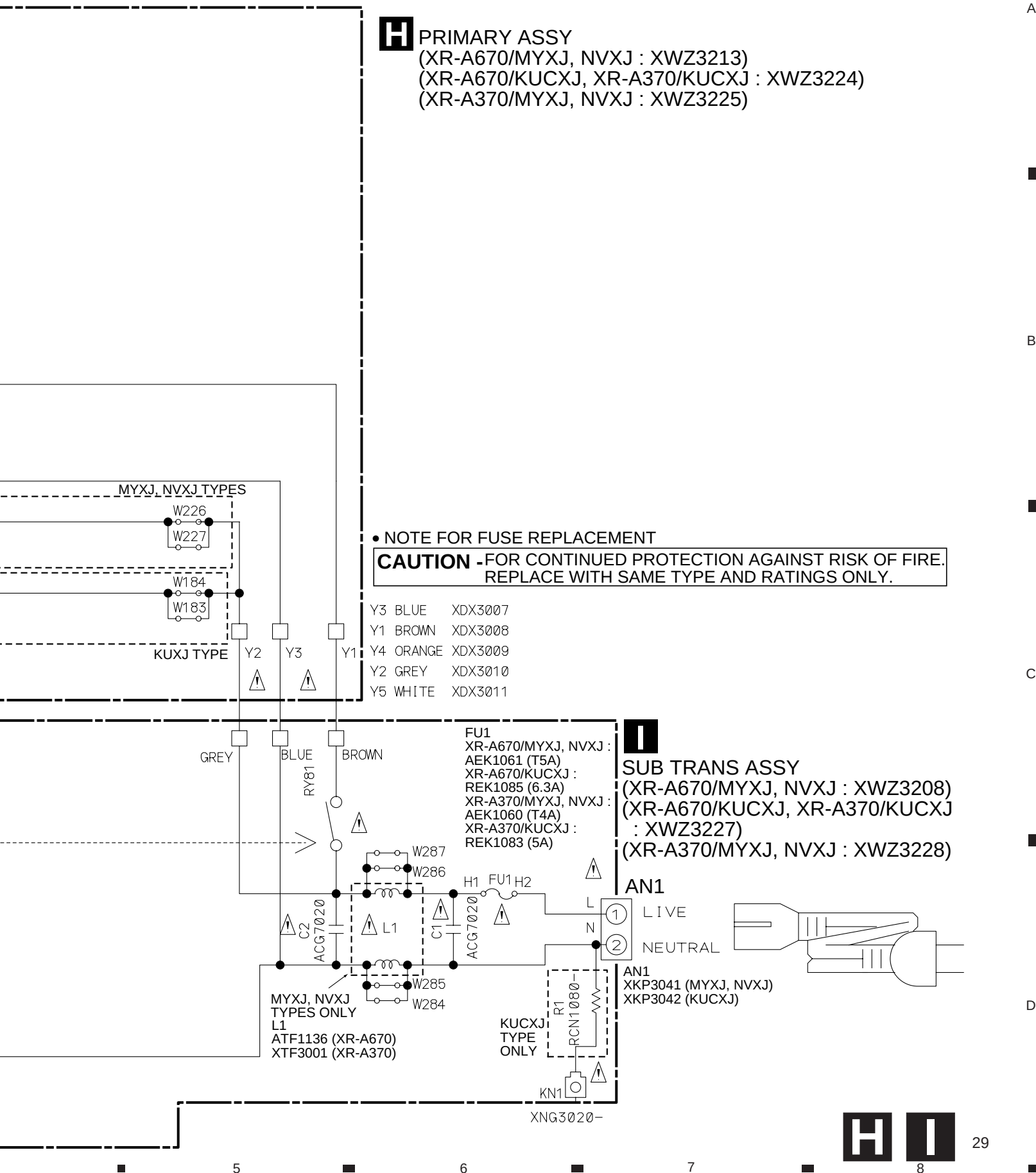
(XR-A370/MYXJ, NVXJ : XWZ3228)

AN1

① LIVE

② NEUTRAL

AN1
XKP3041 (MYXJ, NVXJ)
XKP3042 (KUCXJ)



3.9 DISPLAY ASSY

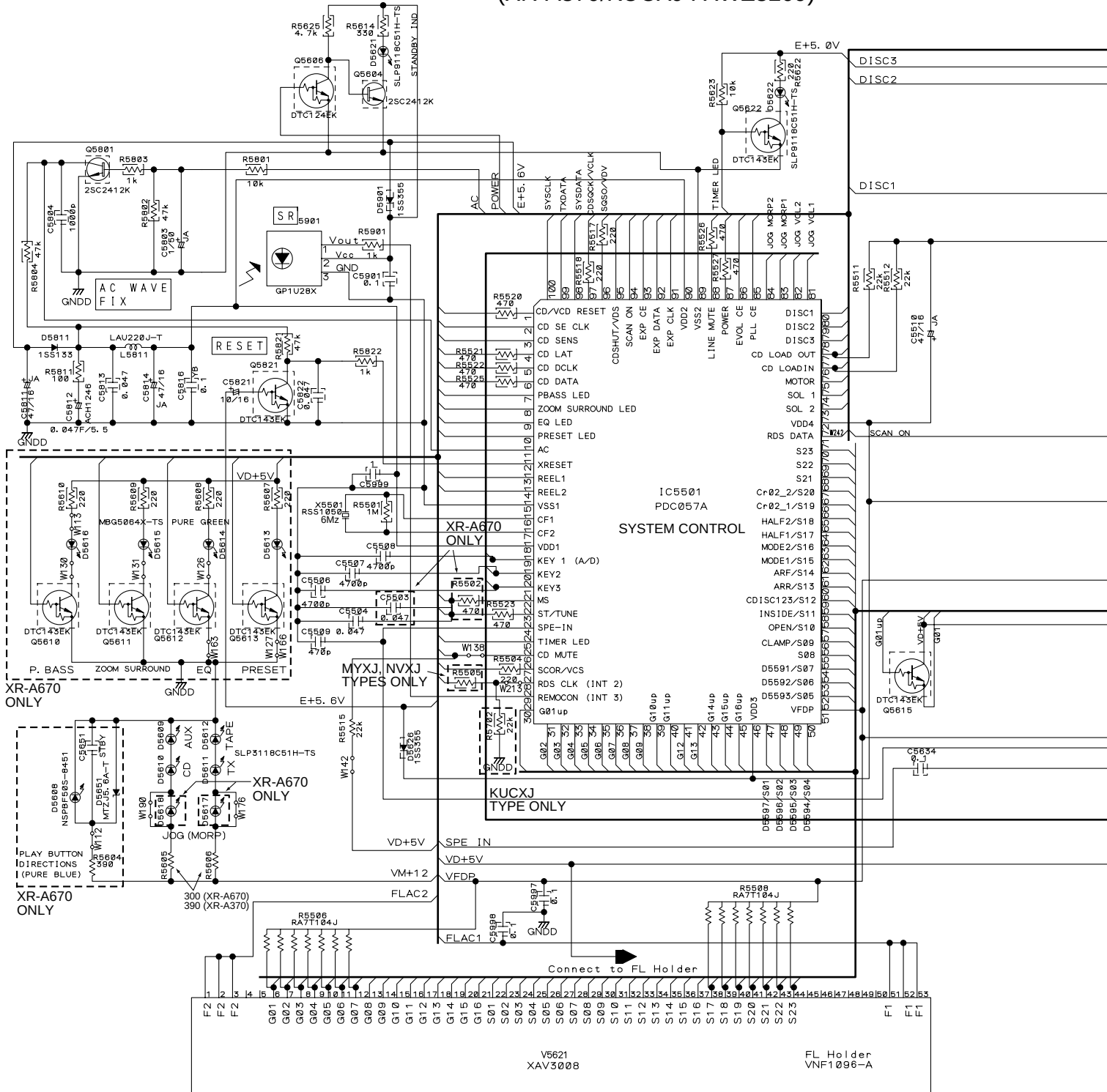
NOTES

ALL CAPACITORS ARE IN μ F
UNLESS OTHERWISE SPECIFIED
TL : CFTLA
M : CQMA
CH : CCSQCH
YB : CKSQYB
SL : CCSQSL
(OTHER : CKSQYF)

AL : CEAL
HAQ : CEHAQ
(OTHER : CEAS**MH#orCEAT***MH#)

ALL RESISTORS ARE IN Ω
1/10W (CHIP)
1/4WPU
ALL INDUCTORS ARE IN μ H
LAU

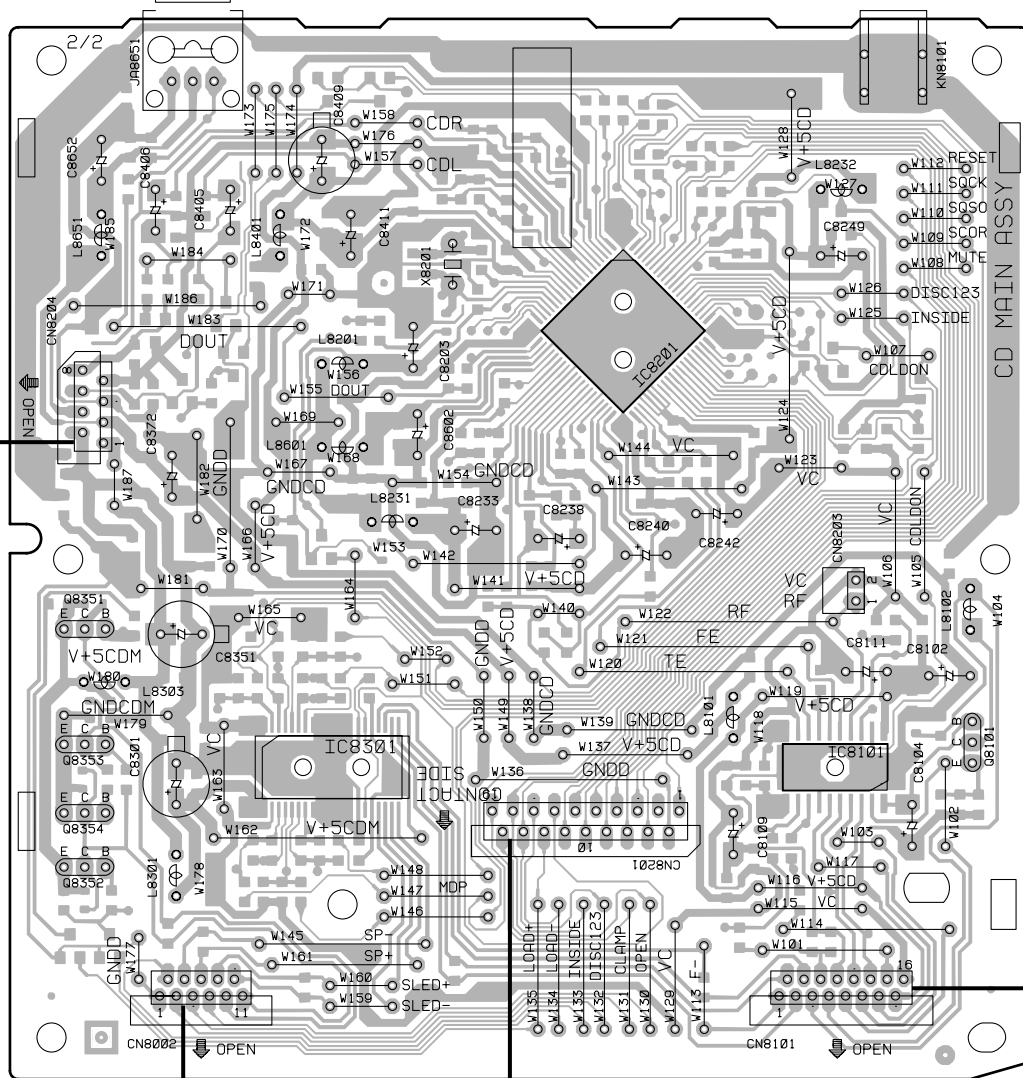
J DISPLAY ASSY
(XR-A670/MYXJ, NVXJ : XWZ3215)
(XR-A670/KUCXJ : XWZ3214)
(XR-A370/MYXJ, NVXJ : XWZ3210)
(XR-A370/KUCXJ : XWZ3209)





4.3 CD, MOTOR, SW and TRADE ASSYS

B CD ASSY



IC8201

Q8351

Q8353 Q8101
IC8301 IC8101
Q8354
Q8352

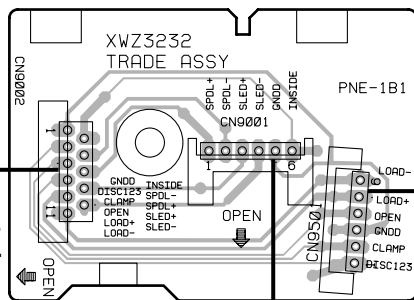
SERVO
MECHANISM
ASSY

F CN1052

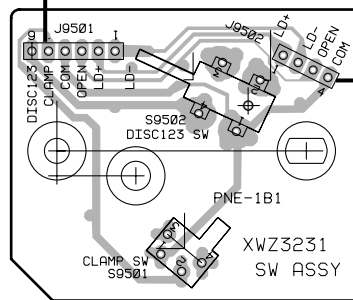
J CN5501

D SW ASSY

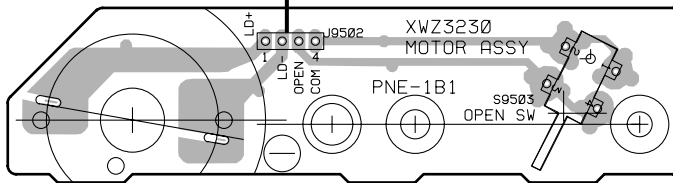
E TRADE ASSY



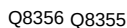
SERVO
MECHANISM
ASSY



C MOTOR ASSY



SIDE A (XNP3023-B)



D



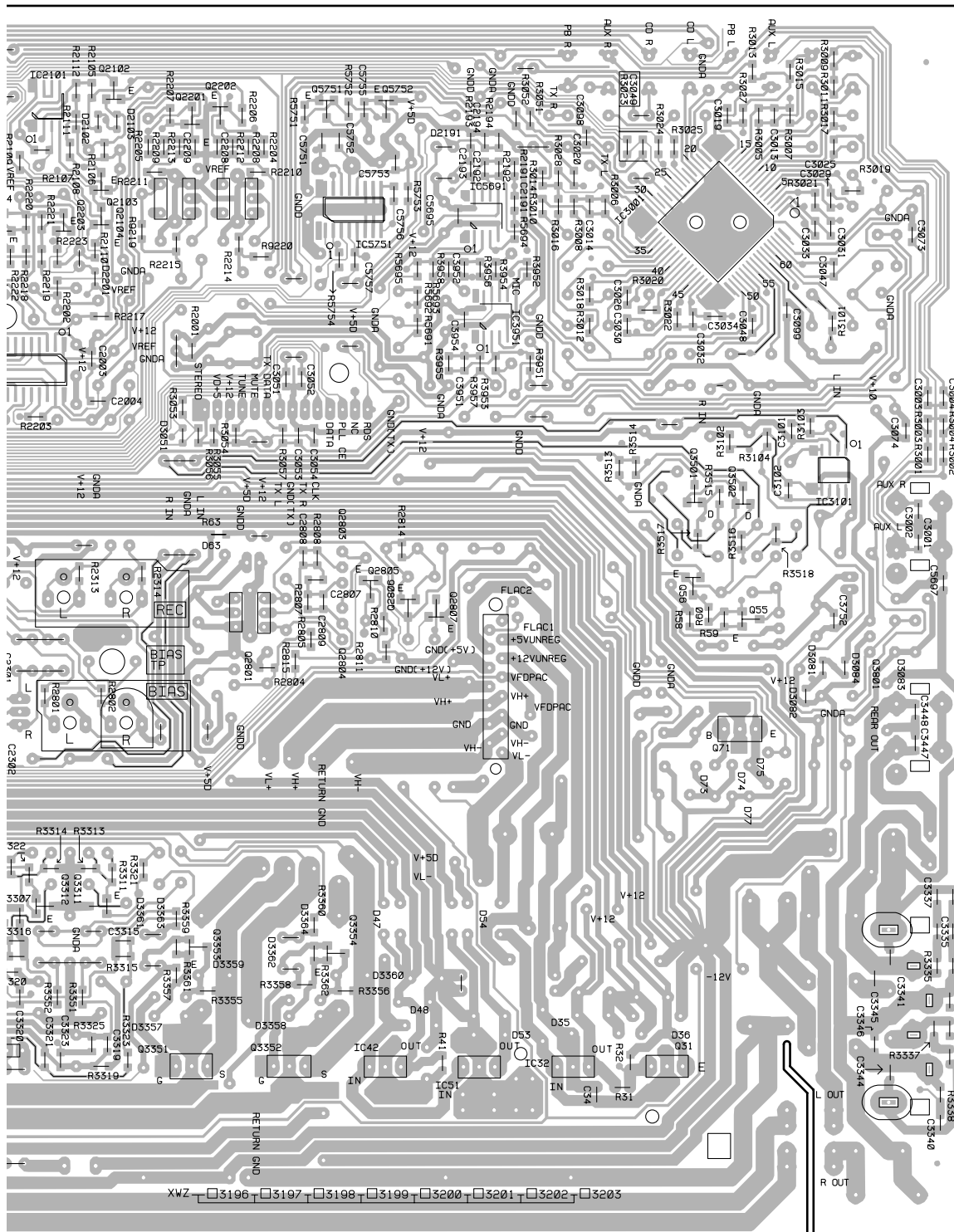
E



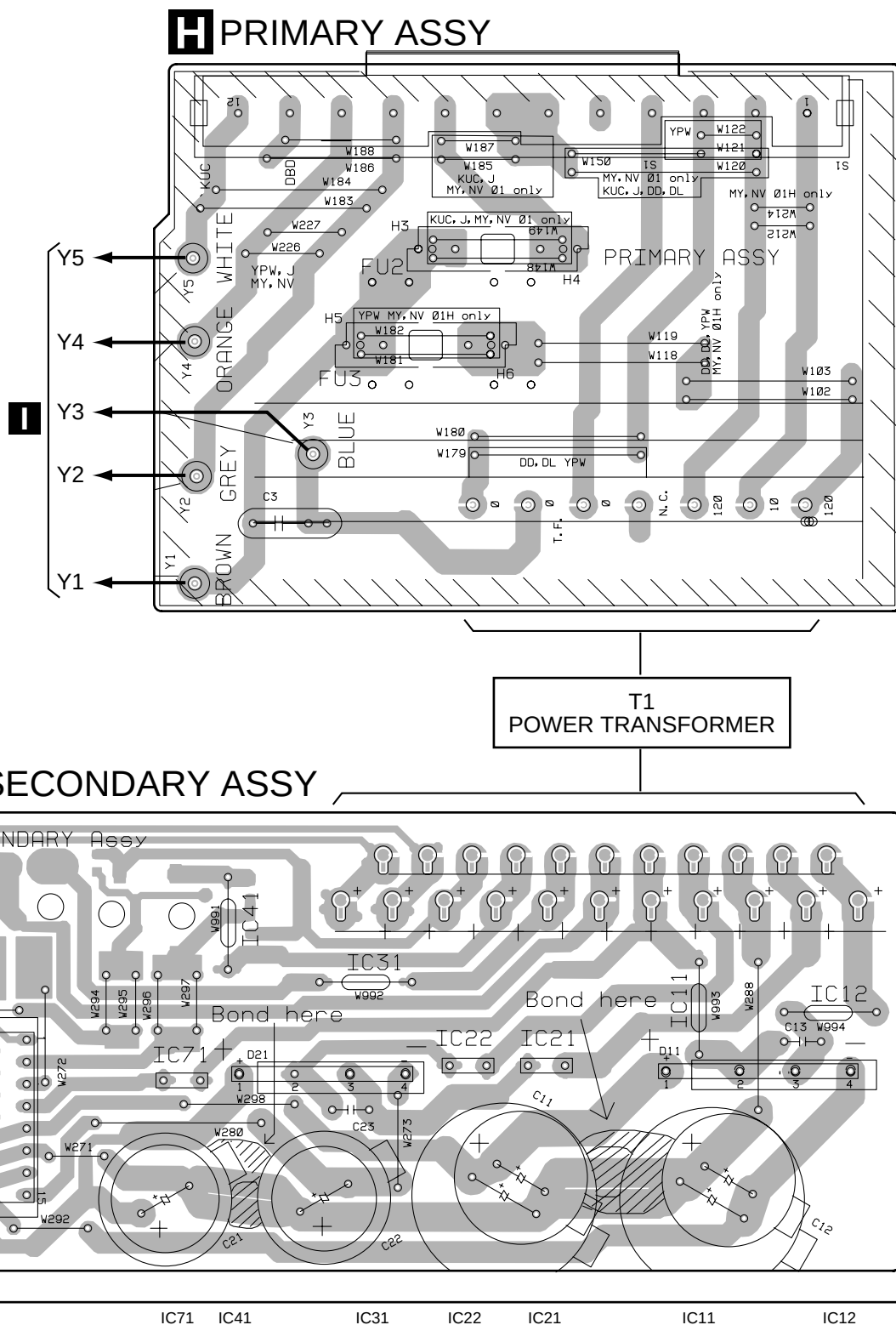
C



SIDE B

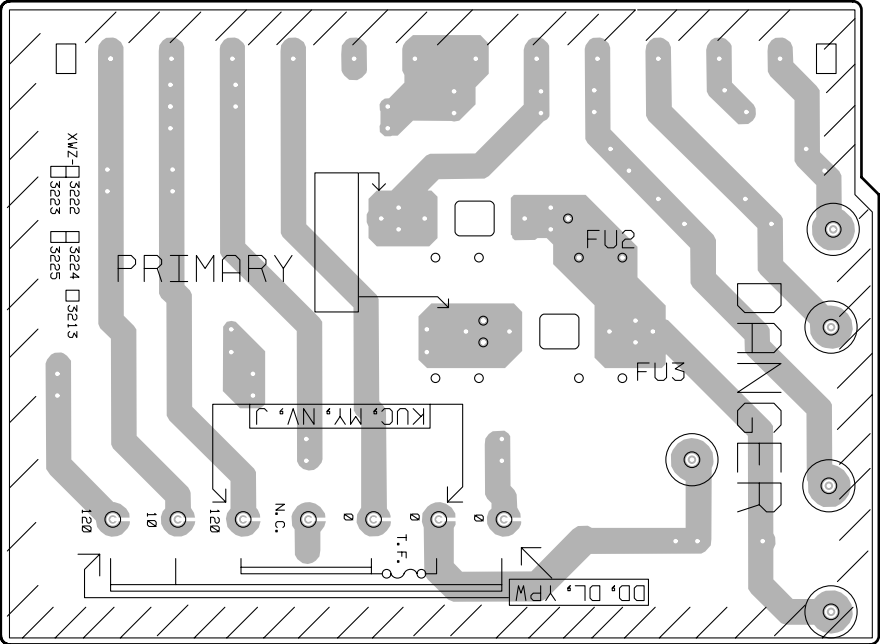
[illegible]

4.5 SECONDARY and PRIMARY ASSYS

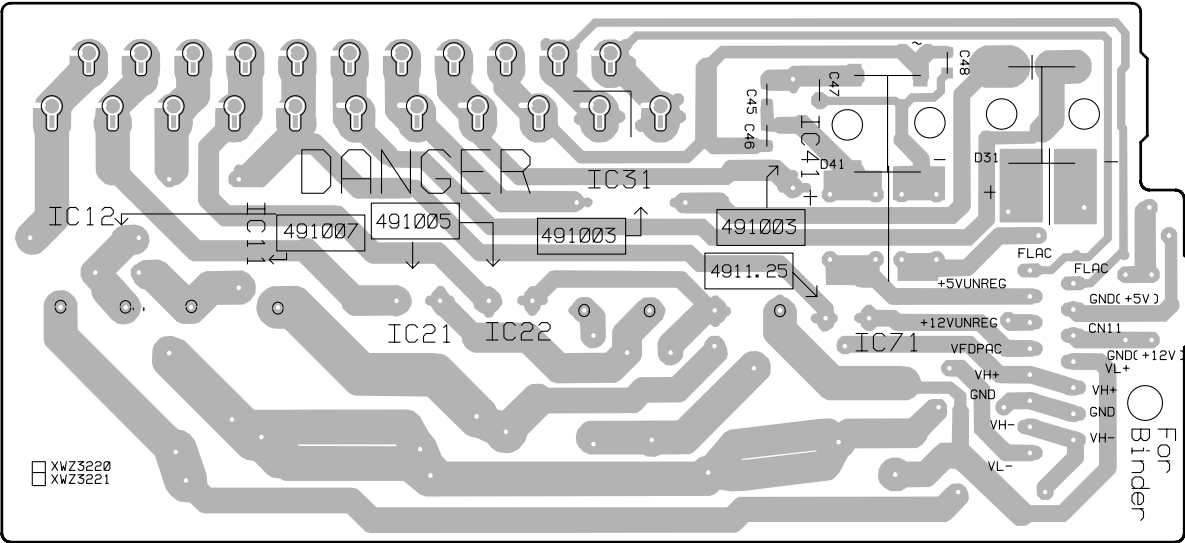


SIDE A (XNP3021-B)

H PRIMARY ASSY



G SECONDARY ASSY



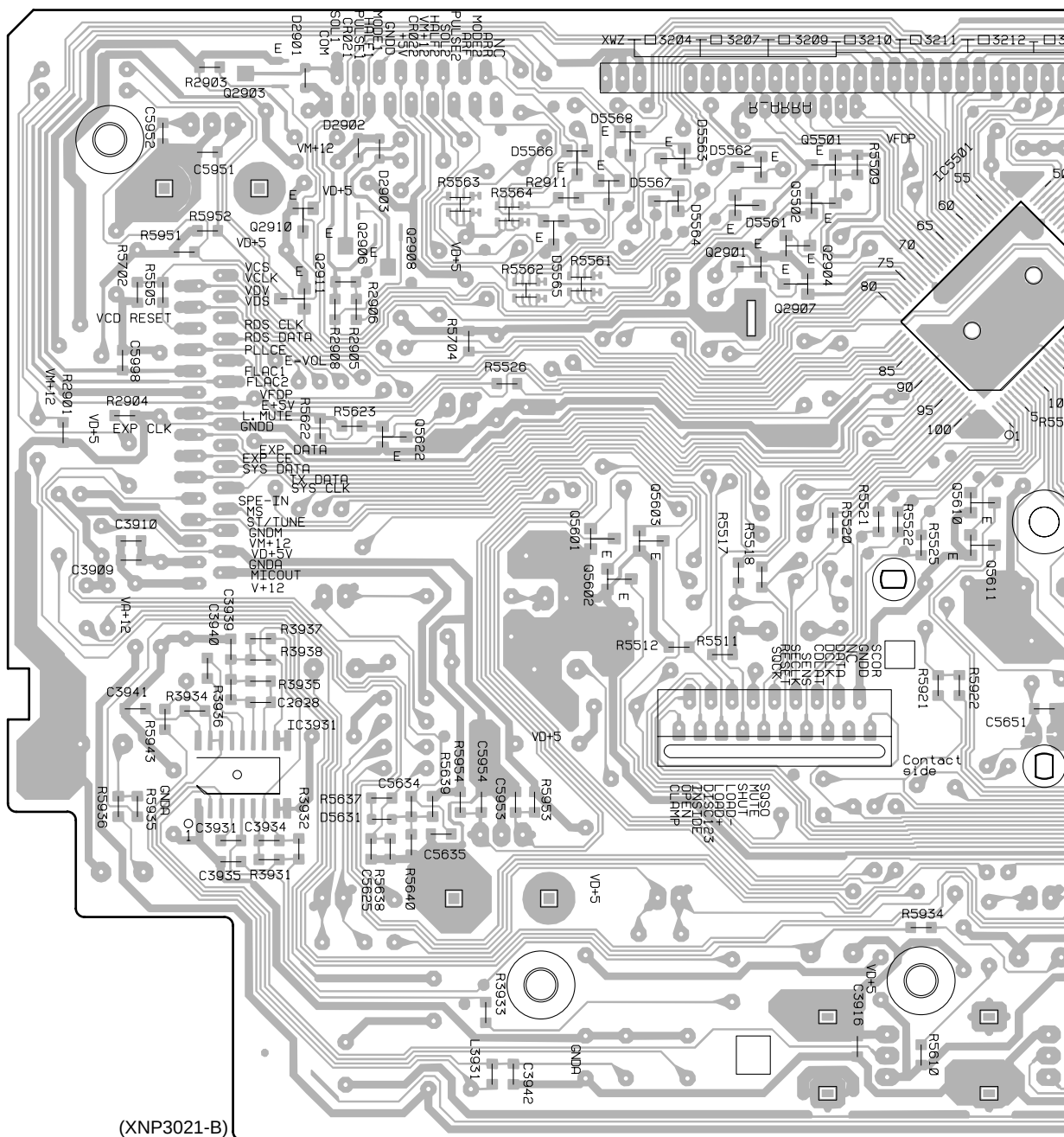
IC3901



D

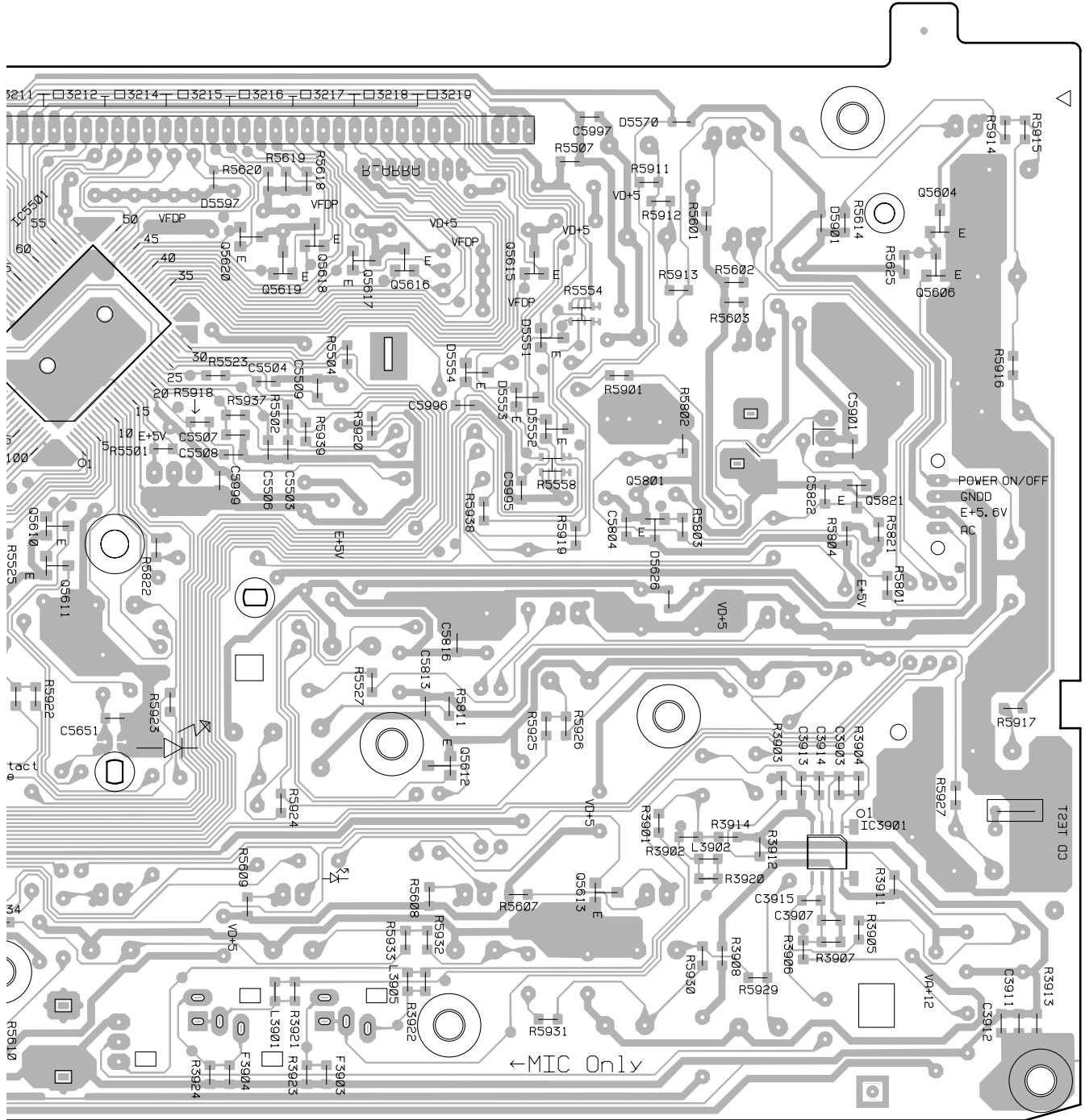
J

J DISPLAY ASSY



Q2903 Q2910 Q2911 Q5622 Q5601-Q5603 Q2901 Q5501 Q5502 Q2904 Q2907 IC5501

SIDE B



IC5501

Q5615-Q5620

Q5613 Q5801

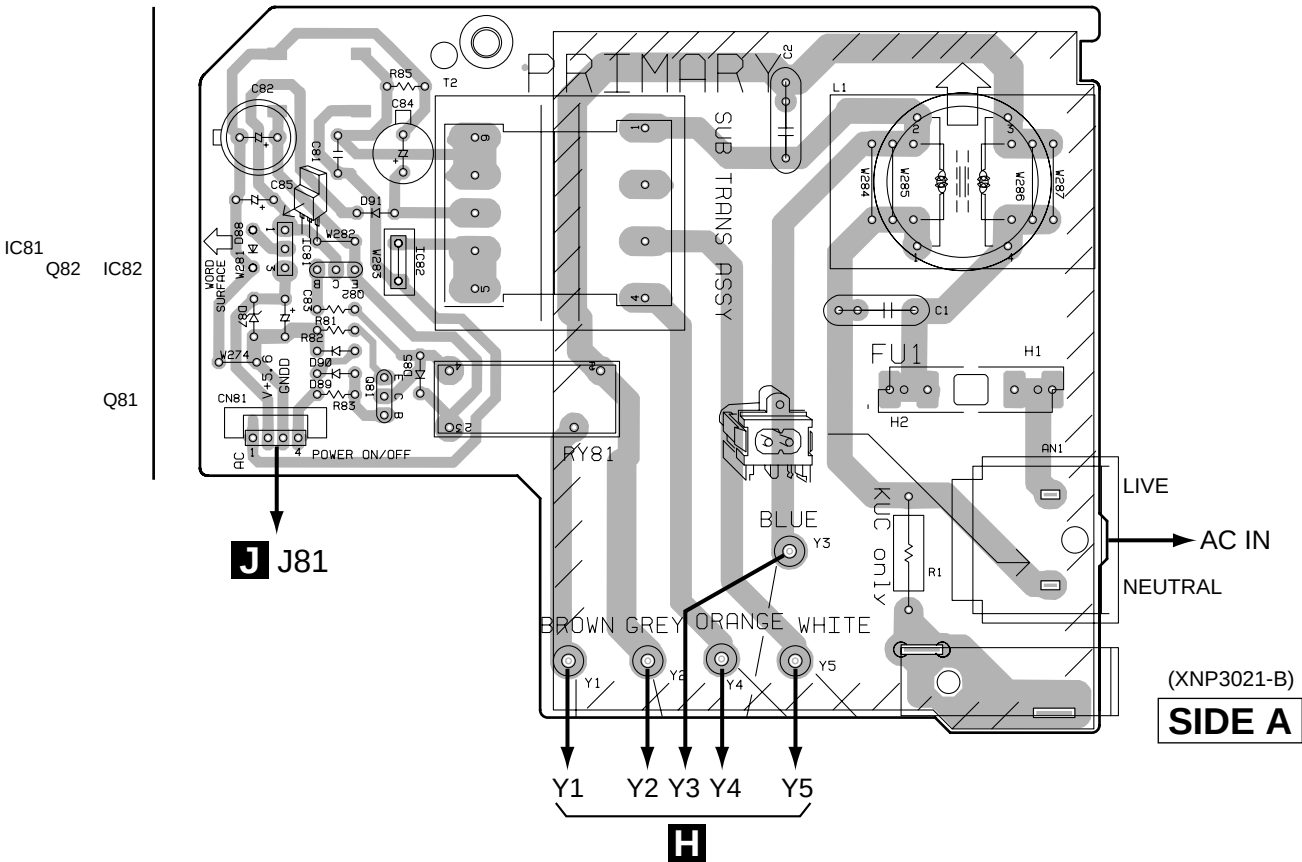
Q5821

Q5604
Q5606

4.7 SUB TRANS ASSY

A

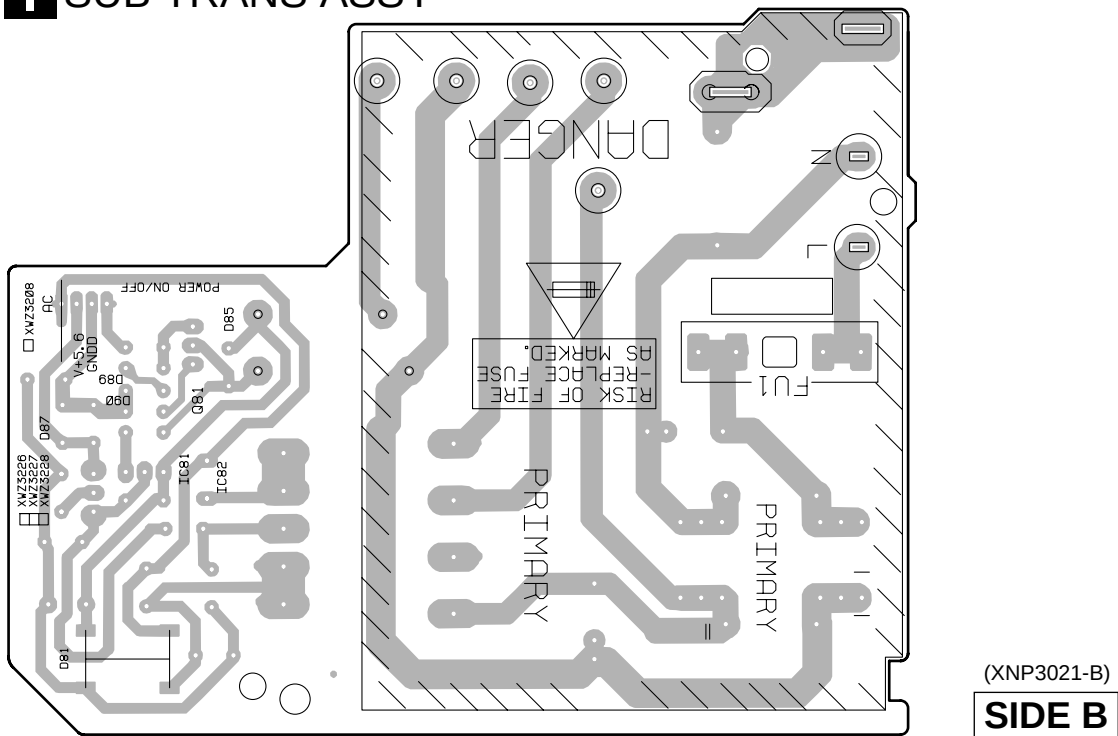
I SUB TRANS ASSY



B

C

I SUB TRANS ASSY



5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

●The Δ mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

●When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω $\rightarrow$ 56×10^1 $\rightarrow$ 561 RD1/4PU 5 6 1 J

47k Ω $\rightarrow$ 47×10^3 $\rightarrow$ 473 RD1/4PU 4 7 3 J

0.5 Ω $\rightarrow$ R50 RN2H R 5 0 K

1 Ω $\rightarrow$ 1R0 RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω $\rightarrow$ 562×10^1 $\rightarrow$ 5621 RN1/4PC 5 6 2 1 F

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.						Remarks
		XR-A670			XR-A370			
		MYXJ	NVXJ	KUCXJ	MYXJ	NVXJ	KUCXJ	
NSP	FM/AM TUNER MODULE	AXQ7068	AXQ7068	AXQ7065	AXQ7068	AXQ7068	AXQ7065	
	\$M SERVO MECHA ASSY	XWX3008	XWX3008	XWX3008	XWX3007	XWX3007	XWX3007	
	└ CD ASSY	XWZ3233	XWZ3233	XWZ3233	XWZ3229	XWZ3229	XWZ3229	
	└ MOTOR ASSY	XWZ3230	XWZ3230	XWZ3230	XWZ3230	XWZ3230	XWZ3230	
	└ SW ASSY	XWZ3231	XWZ3231	XWZ3231	XWZ3231	XWZ3231	XWZ3231	
	└ TRADE ASSY	XWZ3232	XWZ3232	XWZ3232	XWZ3232	XWZ3232	XWZ3232	
	MAIN ASSY	XWM3101	XWM3101	XWM3100	XWM3098	XWM3098	XWM3097	
	└ AF ASSY	XWZ3200	XWZ3200	XWZ3199	XWZ3197	XWZ3197	XWZ3196	
	COMPLEX ASSY	XWM3114	XWM3114	XWM3113	XWM3109	XWM3109	XWM3108	
	└ SECONDARY ASSY	XWZ3221	XWZ3221	XWZ3221	XWZ3220	XWZ3220	XWZ3220	
	└ PRIMARY ASSY	XWZ3213	XWZ3213	XWZ3224	XWZ3225	XWZ3225	XWZ3224	
	└ SUB TRANS ASSY	XWZ3208	XWZ3208	XWZ3227	XWZ3228	XWZ3228	XWZ3227	
	└ DISPLAY ASSY	XWZ3215	XWZ3215	XWZ3214	XWZ3210	XWZ3210	XWZ3209	

■ CONTRAST OF PCB ASSEMBLIES

B CD ASSY

XWZ3233 and XWZ3229 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3233	XWZ3229	
	L8651	LFA100J	Not used	
	C8604	CCSQCH220J50	Not used	
	C8651, C8653	CKSQYF103Z50	Not used	
	C8652	CEAT101M10	Not used	
	R8601	RS1/10S181J	Not used	
	R8651	RS1/10S821J	Not used	
	R8652	RS1/10S152J	Not used	
	JA8651	GP1F32T	Not used	
	Optical Link Out			

F AF ASSY (for XR-A670)

XWZ3200 and XWZ3119 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3200	XWZ3119	
	IC5751 Q5751 Q5752 L3333, L3334 L3991	BU1923F 2SA1037K DTC124EK ATH-133 Not used	Not used Not used Not used Not used LAU4R7J	
	L5751 C1997 C2003, C2004 C2327-C2330, C3101, C3102, C3321, C3322 C3003, C3004	LAU1R0J CKSQYB103K50 CKSQYB104K25 CCSQCH470J50 CKSQYB221K50	Not used Not used Not used Not used Not used	
	C3023, C3024 C3025, C3026 C3029, C3030 C3043, C3044 C3051, C3052	CFTLA564J50 CKSQYB104K25 CKSQYB563K25 CEATR47M50 CKSQYB472K50	CFTLA474J50 CKSQYB683K25 CKSQYB273K50 CEAT2R2M50 Not used	
	C3073, C3074 C3081 C3082 C3091 C3335-C3338	CKSQYB122K50 CEAT4R7M50 CEATR47M50 CEAT2R2M50 CKSQYF104Z50	Not used CEAT100M50 CEAT2R2M50 CEAT100M50 Not used	
	C3345, C3346 C5751, C5752, C5755 C5753 C5754 C5756	ACG7021 (0.01μF) CCSQCH270J50 CKSQYB102K50 CEAT330M16 CCSQCH561J50	Not used Not used Not used Not used Not used	
	C5757 C5758 R3101, R3102 R3315, R3316 R3317, R3318	CCSQCH271J50 CEAT100M50 RS1/10S392J RS1/10S563J RD1/4PU563J	Not used Not used RS1/10S472J RS1/10S683J RD1/4PU683J	
	R3323, R3324 R3333, R3334 R3335, R3336 R3515-R3518 R5751	RS1/10S102J RD1/4LMF101J RS1/10S100J RS1/10S152J RS1/10S223J	RS1/10S0R0J RD1/4LMF100J Not used RS1/10S122J Not used	
	R5752 R5753 R5754	RS1/10S222J RS1/10S101J RS1/10S102J	Not used Not used Not used	
△	X5751 Crystal Resonator (4.332MHz)	ASS7004	Not used	

F AF ASSY (for XR-A370)

XWZ3197 and XWZ3196 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3197	XWZ3196	
	IC5751 Q5751 Q5752 L101 L3333, L3334	BU1923F 2SA1037K DTC124EK VTH1024 ATH-133	Not used Not used Not used Not used Not used	
	L3991 L5751 C1997 C2327-C2330, C3101, C3102, C3321, C3322 C3003, C3004	Not used LAU1R0J CKSQYB103K50 CCSQCH470J50 CKSQYB221K50	LAU4R7J Not used Not used Not used Not used	
	C3023, C3024 C3025, C3026 C3029, C3030 C3043, C3044 C3051, C3052	CFTLA564J50 CKSQYB104K25 CKSQYB563K25 CEATR47M50 CKSQYB472K50	CFTLA474J50 CKSQYB683K25 CKSQYB273K50 CEAT2R2M50 Not used	
	C3073, C3074 C3081 C3082 C3091 C3335-C3338	CKSQYB122K50 CEAT4R7M50 CEATR47M50 CEAT2R2M50 CKSQYF104Z50	Not used CEAT100M50 CEAT2R2M50 CEAT100M50 Not used	
	C3345, C3346 C5751, C5752 C5753 C5754 C5755	ACG7021 (0.01μF) CCSQCH270J50 CKSQYB102K50 CEAT330M16 CCSQCH270J50	Not used Not used Not used Not used Not used	
	C5756 C5757 C5758 R3101, R3102 R3315, R3316	CCSQCH561J50 CCSQCH271J50 CEAT100M50 RS1/10S392J RS1/10S563J	Not used Not used Not used RS1/10S472J RS1/10S683J	
	R3317, R3318 R3323, R3324 R3333, R3334 R3335, R3336 R3509	RD1/4PU563J RS1/10S102J RD1/4LMF101J RS1/10S100J RS1/10S393J	RD1/4PU683J RS1/10S0R0J RD1/4LMF100J Not used RS1/10S473J	
	R3515-R3518 R5751 R5752 R5753 R5754	RS1/10S152J RS1/10S223J RS1/10S222J RS1/10S101J RS1/10S102J	RS1/10S122J Not used Not used Not used Not used	
△	X5751 Crystal Resonator (4.332MHz)	ASS7004	Not used	

XR-A670, XR-A370

G SECONDARY ASSY

XWZ3221 and XWZ3220 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3221	XWZ3220	
△ △ △ △ △	IC11, IC12 IC21, IC22 IC31 D31, D41 C11, C12	AEK7068 (10A) AEK7021 (7A) AEK7053 (4A) S1WB(A)60BSD XCH3001 (4700μF/80V)	AEK7047 7A) AEK7019 (5A) AEK7050 (3A) S1WB(A)60SD ACH7071 (3300μF/63V)	

H PRIMARY ASSY

XWZ3213, XWZ3224 and XWZ3225 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		XWZ3213	XWZ3224	XWZ3225	
NSP NSP	Y4 Jumper Wire Y5 Jumper Wire	XDX3009 Not used	Not used XDX3011	XDX3009 Not used	

I SUB TRANS ASSY

XWZ3208, XWZ3227 and XWZ3228 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		XWZ3208	XWZ3227	XWZ3228	
△ △ △	L1 Line Filter R1 (2.2MΩ, 1/2W) AN1 1P AC INLET	ATF1136 Not used XKP3041	Not used RCN1080 XKP3042	XTF3001 Not used XKP3041	

J DISPLAY ASSY

XWZ3215, XWZ3214, XWZ3210 and XWZ3209 are constructed the same except for the following :

Mark	Symbol and Description	Part No.				Remarks
		XWZ3215	XWZ3214	XWZ3210	XWZ3209	
	Q5610-Q5613 D5561, D5562 D5593 D5594-D5596 D5597	DTC143EK 1SS181 1SS133 1SS133 Not used	DTC143EK 1SS181 1SS133 Not used 1SS355	Not used Not used Not used 1SS133 Not used	Not used Not used Not used Not used 1SS355	
	D5608 D5613-D5616 D5617, D5618 D5651 C5503	NSPBF50S-8451 MBG5064X SLP7118C51H MTZJ5.6A CKSQYF473Z50	NSPBF50S-8451 MBG5064X SLP7118C51H MTZJ5.6A CKSQYF473Z50	Not used Not used Not used Not used Not used	Not used Not used Not used Not used Not used	
	R5502 R5505 R5604 R5605, R5606 R5607-R5610	RS1/10S471J RS1/10S102J RD1/4PU391J RD1/4PU301J RS1/10S221J	RS1/10S471J Not used RD1/4PU391J RD1/4PU301J RS1/10S221J	Not used RS1/10S102J Not used RD1/4PU391J Not used	Not used Not used Not used RD1/4PU391J Not used	
	R5702, R5704 CN2903 17P FFC Connector CN2903 15P FFC Connector LED Holder	Not used 52045-1745 Not used XMR3006	RS1/10S223J 52045-1745 Not used XMR3006	Not used 52045-1745 Not used Not used	RS1/10S223J Not used 52045-1545 Not used	

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
PCB PARTS LIST FOR XR-A670/MYXJ UNLESS OTHERWISE NOTED							
AA FM/AM TUNER MODULE (AXQ7068)							
SEMICONDUCTORS							
	IC6201		LA1832ML		C6244		CEAS470M16
	IC6202		LC72131MD		C6249,C6250,C6265,C6266		CEAS4R7M50
	Q6102		2SC2223		C6258		CEJA470M16
	Q6203		2SC2705		C6215		CFTLA103J50
	Q6201,Q6202		2SC2712		C6214		CFTLA224J50
	Q6103,Q6214,Q6601		2SC2714		C6115,C6125,C6126,C6211,C6254		CKSQYB102K50
	Q6104,Q6105		2SK302		C6601		CKSQYB102K50
	Q6101		3SK194		C6102,C6114,C6121,C6123,C6124		CKSQYB103K50
	Q6204		DTA124ES		C6210,C6213,C6237,C6267,C6276		CKSQYB103K50
	Q6205		DTC124EK		C6279,C6281,C6604		CKSQYB103K50
	D6202		1SS254		C6251,C6252		CKSQYB123K50
	D6101-D6104		1SV228		C6606,C6607		CKSQYB182K50
COILS AND FILTERS					C6203,C6259		CKSQYB223K50
	L6106	FM COIL	ATC1003		C6228		CKSQYB472K50
	L6105	FM RF COIL	ATC1015		C6209		CKSQYB473K50
	L6101	FM ANTENNA COIL	ATC1016		C6230		CKSQYB821K50
	L6102	FM ANTENNA COIL	ATC1017		C6218,C6223,C6255		CKSQYF103Z50
	L6103	FM RF DRIVE COIL	ATC1018		C6220,C6226,C6242,C6256		CKSQYF223Z50
	L6104	FM RF TUNING COIL	ATC1019		C6225		CKSQYF473Z50
	F6203	FM CERAMIC FILTER	ATF-119		C6610		CKSYB103K50
	F6206	FM CERAMIC DISCLI.	ATF7008	RESISTORS			
	F6601	ANTI BIRDY FILTER	ATF7009		R6602		RD1/4PU221J
	F6204	FM CERAMIC FILTER	ATF7010		R6115,R6119,R6123,R6127,R6129		RS1/8S0R0J
	F6202	AM CERAMIC FILTER	ATF7011		R6906,R6909,R6911		RS1/8S0R0J
	L6107	CHIP COIL	ATH1043		R6112		RS1/8S473J
	L6603		LAU220J		VR6201 (10kΩ)		RCP1045
	L6206,L6208,L6605		LAU2R2J		Other Resistors		RS1/10S□□□J
TRANSFORMERS				OTHERS			
	T6201		ATB7008		BN6202	2P ANTENNA TERMINAL	AKA7001
	T6101		ATE7002		X6202	CERAMIC RESONATOR (456kHz)	ASS1066
CAPACITORS					X6201	CRYSTAL RESONATOR (7.2000MHz)	ASS1093
	C6113,C6212,C6274,C6275,C6611		CCSQCH101J50		CN6201	14P SOCKET	KP200IA14L
	C6116,C6208,C6221		CCSQCH150J50	AB FM/AM TUNER MODULE (AXQ7065)			
	C6222		CCSQCH180J50	SEMICONDUCTORS			
	C6271		CCSQCH200J50		IC6201		LA1832ML
	C6117		CCSQCH330J50		IC6202		LC72131MD
	C6608		CCSQCH680J50		Q6402		2SC2223
	C6118		CCSQCH8R0D50		Q6203		2SC2705
	C6111,C6122		CCSQCK1R0C50		Q6201,Q6202		2SC2712
	C6112,C6127		CCSQCK2R0C50		Q6214,Q6403		2SC2714
	C6105		CCSQSL471J50		Q6404		2SK302
	C6101		CCSQTH110J50		Q6401		3SK194
	C6119		CCSQTH150J50		Q6204		DTA124ES
	C6109		CCSQTH270J50		Q6205		DTC124EK
	C6107,C6110		CCSQTH300J50		D6202		1SS254
	C6106		CCSQTH330J50		D6401,D6402		1T378A
	C6234,C6235		CEAL1R0M50	COILS AND FILTERS			
	C6245		CEAL470M16		L6404	FM COIL	ATC1003
	C6224		CEAS100M50		L6401	FM RF COIL	ATC1020
	C6243		CEAS101M16		L6402	FM RF COIL	ATC1021
	C6231		CEAS1R0M50		F6204	FM CERAMIC FILTER	ATF-107
	C6227		CEAS220M16		F6203	FM CERAMIC FILTER	ATF-119
	C6236		CEAS2R2M50				
	C6216		CEAS330M16				
	C6262		CEAS3R3M50				
	C6219		CEAS470M10				

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Mark	No.	Description	Part No.
	F6401	FM BAND PASS FILTER	ATF-155
	F6206	FM CERAMIC DISCLI.	ATF7008
	F6202	AM CERAMIC FILTER	ATF7011
	L6206,L6208,L6403		LAU2R2J

TRANSFORMERS

T6201	ATB7008
T6401	ATE7002

CAPACITORS

C6208	CCSQCH100D50
C6212,C6274,C6275,C6408	CCSQCH101J50
C6412	CCSQCH102J50
C6221,C6222,C6416	CCSQCH150J50
C6271	CCSQCH200J50
C6415	CCSQCH330J50
C6406	CCSQCH331J50
C6401,C6419	CCSQCH5R0C50
C6407	CCSQCK1R0C50
C6410	CCSQCK2R0C50
C6413	CCSQRH180J50
C6414	CCSQRH8R0D50
C6405	CCSQTH150J50
C6234,C6235	CEAL1R0M50
C6245	CEAL470M16
C6224	CEAT100M50
C6243	CEAT101M16
C6231	CEAT1R0M50
C6227	CEAT220M25
C6214,C6236	CEAT2R2M50
C6262	CEAT3R3M50
C6219	CEAT470M10
C6244	CEAT470M16
C6249,C6250,C6265,C6266	CEAT4R7M50
C6258	CEJA470M16
C6215	CFTLA103J50
C6211,C6254,C6403,C6417	CKSQYB102K50
C6201,C6205,C6210,C6237,C6276	CKSQYB103K50
C6278,C6280,C6281,C6402,C6409	CKSQYB103K50
C6418	CKSQYB103K50
C6251,C6252	CKSQYB153K50
C6203,C6259	CKSQYB223K50
C6228	CKSQYB472K50
C6209	CKSQYB473K50
C6230	CKSQYB821K50
C6218,C6223,C6255	CKSQYF103Z50
C6220,C6226,C6242,C6256	CKSQYF223Z50
C6225	CKSQYF473Z50

RESISTORS

R6280	RD1/4PU101J
R6413,R6416,R6418,R6906,R6909	RS1/8S0R0J
R6401	RS1/8S470J
VR6201 (10kΩ)	PCP1029
Other Resistors	RS1/10S□□□J

OTHERS

BN6202	4P ANTENNA TERMINAL	AKE7051
X6202	CERAMIC RESONATOR (456kHz)	ASS1066
X6201	CRYSTAL RESONATOR (7.2000MHz)	ASS1093
CN6201	14P SOCKET	KP200IA14L

Mark	No.	Description	Part No.
B CD ASSY			
SEMICONDUCTORS			

IC8301	BA5970FP
IC8101	CXA1821M
IC8201	CXD2587Q
Q8101	2SA854S
Q8351,Q8352	2SB1237X

Q8353,Q8354	2SD1858X
Q8201	DTA124EK
Q8202	DTC114EK
Q8203,Q8355,Q8356	DTC143EK
D8201,D8202,D8351-D8354	1SS355

COILS

L8101,L8651	LFA100J
L8301	LFA470J

CAPACITORS

C8256,C8359,C8364	CCSQCH101J50
C8201	CCSQCH120J50
C8110,C8202,C8604	CCSQCH220J50
C8239,C8246,C8247,C8401,C8402	CCSQCH221J50
C8322,C8324	CCSQCH681J50
C8403,C8404	CCSLSL681J50
C8405,C8406	CEAT100M50
C8102,C8104,C8652	CEAT101M10
C8203,C8233,C8240,C8242,C8249	CEAT101M6R3
C8602	CEAT101M6R3
C8301	CEAT102M6R3
C8409,C8411	CEAT221M10
C8109,C8111	CEAT330M25
C8351	CEAT331M10
C8238	CEATR47M50
C8407,C8408	CKSQYB102K50
C8204-C8206,C8237,C8253,C8373	CKSQYB103K50
C8107,C8245	CKSQYB104K25
C8236,C8415,C8416	CKSQYB152K50
C8231,C8331	CKSQYB222K50
C8341,C8342	CKSQYB333K50
C8235	CKSQYB473K50
C8311,C8312	CKSQYB681K50
C8332	CKSQYB822K50
C8101,C8103,C8106,C8108,C8112	CKSQYF103Z50
C8232,C8234,C8241,C8248	CKSQYF103Z50
C8250,C8251,C8302-C8306,C8358	CKSQYF103Z50
C8363,C8413,C8414,C8417,C8601	CKSQYF103Z50
C8603,C8651,C8653	CKSQYF103Z50

RESISTORS

All Resistors	RS1/10S□□□J
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OTHERS

CN8204	8P FFC CONNECTOR	52044-0845
CN8201	19P FFC CONNECTOR	52045-1945
CN8203	2P TOP POST	B2P-SHF-1AA
JA8651	OPTICAL LINK OUT	GP1F32T
CN8002	FFC CONNECTOR (11P)	SLW11R-1C7
CN8101	FFC CONNECTOR (16P)	SLW16R-1C7
X8201	CRYSTAL RESONATOR (16.9344MHz)	PSS1008

Mark	No.	Description	Part No.
C	MOTOR ASSY		
	SWITCH		
	S9503		ASG7009
OTHERS			
	J9502	JUMPER WIRE 4P MOTOR PULLEY CARRIAGE MOTOR	D20PWW0405E PNW1634 VXM1033
D	SW ASSY		
	SWITCHES		
	S9502		ASG7009
	S9501		DSG1017
OTHERS			
	J9501	JUMPER WIRE 6P	D20PWY0610E
E	TRADE ASSY		
	OTHERS		
	CN9501	6P JUMPER CONNECTOR	52147-0610
	CN9001	KR CONNECTOR	S6B-PH-K-S
	CN9002	FFC CONNECTOR (11P)	SLW11R-1C7
F	AF ASSY (XWZ3200)		
	SEMICONDUCTORS		
△	IC2101,IC3101,IC3501,IC3502	BA4558F-HT	
	IC5691	BA4558F-HT	
	IC5751	BU1923F	
	IC5891,IC5892	BU4094BCF	
	IC2201	HA12136AF	
	IC2301	HA12211NT	
	IC3001	LC75394NED	
△	IC42	NJM7805FA	
△	IC32	NJM7812FA	
△	IC3301	STK407-100B	
△	Q3354,Q3601,Q3621,Q5751	2SA1037K	
	Q71	2SA1837	
	Q2806	2SB1197K	
	Q2803,Q2804	2SC1815	
	Q2801	2SC2240	
	Q2102,Q2201,Q2202,Q3353,Q3603	2SC2412K	
	Q3605-Q3608	2SC2412K	
	Q3081	2SD1858X	
△	Q31	2SD2012	
	Q2203,Q2204,Q2805,Q3311,Q3312	2SD2114K	
	Q2301,Q2302,Q3501,Q3502	2SK368	
	Q3313,Q3503	DTA124EK	
	Q2104,Q2105,Q3314,Q5752	DTC124EK	
	Q2103,Q2306,Q2802,Q2807	DTC143EK	
△	Q3352	IRF540A	
△	Q3351	IRF9540A	
△	D3301,D3302	1SR139-100	
	D2191,D2301-D2306,D3351-D3354	1SS133	
	D3361,D3362,D3601,D3603,D3604	1SS133	
	D3621,D3622,D3625,D3626,D46	1SS133	

Mark	No.	Description	Part No.
△	D73		1SS133
	D2102,D2103,D2201,D2202,D3051		1SS355
	D63,D64		1SS355
	D3355,D3356		20E2-FC
	D3083		MTZJ11C
	D61		MTZJ12C
	D35,D36		MTZJ15C
	D3359,D3360		MTZJ18B
	D74		MTZJ33C
	D3363,D3364		MTZJ39C
△	D2001		MTZJ6.2A
	D48		MTZJ6.8C
	D3357,D3358		MTZJ7.5C
	D75		MTZJ8.2B
	D51,D52		S5688G
△	D71,D72		S5688G
COILS AND FILTERS			
	L3331-L3334	AF CHOKE COIL	ATH-133
	L2801	OSC COIL	ATX7002
	L5751		LAU1R0J
	L2301,L2302		LTA822J
	F2201,F2202	MPX FILTER	RTF1209
	L101	FERRITE BEAD	VTH1024
RELAY			
	RY3601		ASR7008
CAPACITORS			
	C3345,C3346 (0.01μF)		ACG7021
	C2303,C2304 (270pF)		ACG7024
	C2301,C2302		CCSQCH100D50
	C3047,C3048		CCSQCH101J50
	C2192		CCSQCH220J50
	C5751,C5752,C5755		CCSQCH270J50
	C5757		CCSQCH271J50
	C2327-C2330,C3101,C3102		CCSQCH470J50
	C3321,C3322		CCSQCH470J50
	C5756		CCSQCH561J50
	C3319,C3320		CCSQCJ3R0C50
	C3311,C3312,C3507,C3508		CEANL1R0M50
	C3317,C3318		CEANP220M35
	C3621		CEANP2R2M2A
	C3313,C3314		CEANP2R2M50
	C3441		CEANP330M2A
	C3602		CEAT100M2A
	C2207,C2803,C2810,C3045		CEAT100M50
	C3105,C3106,C33,C35,C43		CEAT100M50
	C5758		CEAT100M50
	C2002,C2316		CEAT101M16
	C71		CEAT101M2A
	C3303,C3304		CEAT101M50
	C2312,C2313,C3506		CEAT1R0M50
	C2106,C2214,C2215,C2321,C2322		CEAT220M50
	C72		CEAT220M50
△	C2001,C3601		CEAT221M16
△	C41		CEAT222M25
	C31		CEAT222M35
	C2201,C2202,C2205,C2206		CEAT2R2M50

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Mark	No.	Description	Part No.
	C2212,C2213,C2319,C2320		CEAT2R2M50
	C3005-C3010,C3015-C3018,C3037		CEAT2R2M50
	C3039,C3091		CEAT2R2M50
	C2804,C2805,C5754		CEAT330M16
	C3501,C3502,C3509,C3510		CEAT470M25
	C3081		CEAT4R7M50
	C3021,C3022		CEATR10M50
	C2203,C2204		CEATR22M50
	C3011,C3012,C3043,C3044,C3082		CEATR47M50
	C3325		CEATR47M50
	C3046		CEJA100M50
	C3038,C3040		CEJA2R2M50
	C3027,C3028		CFTLA334J50
	C3023,C3024		CFTLA564J50
	C2802		CKCYB681K2H
	C5753,C5892		CKSQYB102K50
	C1997,C2315,C2317,C2318,C3053		CKSQYB103K50
	C3098		CKSQYB103K50
	C2003,C2004,C2191,C2193		CKSQYB104K25
	C3025,C3026,C3099,C5891		CKSQYB104K25
	C2194		CKSQYB105K10
	C3033,C3034,C3073,C3074		CKSQYB122K50
	C2208,C2209		CKSQYB152K50
	C3003,C3004		CKSQYB221K50
	C3315,C3316		CKSQYB222K50
	C2323,C2326		CKSQYB223K50
	C2812,C2813		CKSQYB272K50
	C2808,C2809		CKSQYB332K50
	C2333,C2334		CKSQYB392K50
	C2807,C3051,C3052		CKSQYB472K50
	C3029,C3030		CKSQYB563K25
	C2307,C2308,C2331,C2332		CKSQYB681K50
	C3019,C3020,C3031,C3032		CKSQYB682K50
	C3503,C3504		CKSQYB682K50
	C3331-C3333,C3335-C3338		CKSQYF104Z50
	C2801		CQHA822J2A
	C2210,C2211		CQMBA103J50
	C2806		CQMBA223J50

RESISTORS

	R2812 R2813 R2809 R3333,R3334 R3353,R3354	RD1/2LMF270J RD1/2LMF471J RD1/2LMF4R7J RD1/4LMF101J RD1/4PU101J
	R61 R73 R3081 R3317,R3318 R72	RD1/4PU102J RD1/4PU103J RD1/4PU221J RD1/4PU563J RD1/4PU822J
△	R3991,R3992 R3601,R3602 VR2303-VR2306 (10kΩ) VR2301,VR2302 (100kΩ) VR2801,VR2802 (220kΩ)	RS2LMF331J RS3LMFR22J VCP1156 VCP1162 VCP1164
	Other Resistors	RS1/10S□□□□

OTHERS

	15P CABLE HOLDER 8P FFC CONNECTOR 25P FFC CONNECTOR 4P SPEAKER TERMINAL HEADPHONE JACK	51063-1505 52045-0845 52045-2545 AKE7001 AKN-056
	CN1052 CN5102 CN3331 CN3991	

Mark	No.	Description	Part No.
	CN2302 CN2303 CN2301 J11 CN3051	KR CONNECTOR KR CONNECTOR KR CONNECTOR 3P JUMPER WIRE 14P PLUG	B2B-PH-K-S B3B-PH-K-R B3B-PH-K-S D15A15-350-2651 KM200IB14
△	JA3001,JA3441 X5751	PCB BINDER 2P PIN JACK CRYSTAL RESONATOR (4.332MHz)	VEF1040 VKB1060 ASS7004

AF ASSY (XWZ3197) SEMICONDUCTORS

△	IC3101,IC3501,IC3502 IC5691	BA4558F-HT BA4558F-HT
△	IC5751 IC5891 IC2301	BU1923F BU4094BCF HA12211NT
△	IC3001 IC42 IC32 IC3301 Q3354,Q3601,Q3621,Q5751	LC75394NED NJM7805FA NJM7812FA STK407-070B 2SA1037K
△	Q71 Q2803,Q2804 Q3353,Q3603,Q3605-Q3608 Q3081	2SA1837 2SC1815 2SC2412K 2SD1858X
△	Q31 Q2805,Q3311,Q3312 Q2301,Q2302,Q3501,Q3502 Q3313,Q3503 Q3314,Q5752 Q2306	2SD2012 2SD2114K 2SK368 DTA124EK DTC124EK DTC143EK
△	Q3351 Q3352 D3301,D3302 D2301-D2306,D3351-D3354 D3361,D3362,D3601,D3603,D3604	IRFI9Z34G IRFIZ34G 1SR139-100 1SS133 1SS133
△	D3621,D3622,D3625,D3626,D46 D73 D3051,D63,D64 D3355,D3356 D3083	1SS133 1SS133 1SS355 20E2-FC MTZJ11C
	D61 D35,D36 D3359,D3360 D74 D3363,D3364	MTZJ12C MTZJ15C MTZJ18B MTZJ33C MTZJ39C
	D2001 D48 D3357,D3358 D75 D51,D52	MTZJ6.2A MTZJ6.8C MTZJ7.5C MTZJ8.2B S5688G
△	D71,D72	S5688G

COILS

	L3331-L3334 L2801 L5751 L2301,L2302 L101	AF CHOKE COIL OSC COIL FERRITE BEAD	ATH-133 ATX7002 LAU1R0J LTA822J VTH1024
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Mark	No.	Description	Part No.
RELAY			
	RY3601		ASR7008
CAPACITORS			
	C3345, C3346 (0.01μF)		ACG7021
	C2303, C2304 (270pF)		ACG7024
	C2335-C2338		CCCCH270J50
	C2301, C2302		CCSQCH100D50
	C3047, C3048		CCSQCH101J50
△	C5751, C5752, C5755		CCSQCH270J50
△	C5757		CCSQCH271J50
	C2327-C2330, C3101, C3102		CCSQCH470J50
	C3321, C3322		CCSQCH470J50
△	C5756		CCSQCH561J50
	C3319, C3320		CCSQCJ3R0C50
	C3311, C3312, C3507, C3508		CEANL1R0M50
	C3317, C3318		CEANP220M35
	C3621		CEANP2R2M2A
	C3313, C3314		CEANP2R2M50
	C3602		CEAT100M2A
	C2810, C3045, C3105, C3106, C33		CEAT100M50
	C35, C43		CEAT100M50
△	C5758		CEAT100M50
	C2002, C2316		CEAT101M16
	C71		CEAT101M2A
	C3303, C3304		CEAT101M50
	C2312, C2313, C3506		CEAT1R0M50
	C2321, C2322, C72		CEAT220M50
	C2001, C3601		CEAT221M16
△	C41		CEAT222M25
△	C31		CEAT222M35
	C2212, C2213, C2319, C2320		CEAT2R2M50
	C3005-C3010, C3015-C3018, C3037		CEAT2R2M50
	C3039, C3091		CEAT2R2M50
	C2804, C2805		CEAT330M16
△	C5754		CEAT330M16
	C3501, C3502, C3509, C3510		CEAT470M25
	C3081		CEAT4R7M50
	C3021, C3022		CEATR10M50
△	C3011		CEATR47M50
	C3012, C3043, C3044, C3082, C3325		CEATR47M50
	C3046		CEJA100M50
	C3038, C3040		CEJA2R2M50
	C3027, C3028		CFTLA334J50
	C3023, C3024		CFTLA564J50
△	C5753		CKSQYB102K50
	C1997, C2315, C2317, C2318, C3053		CKSQYB103K50
	C3098		CKSQYB103K50
	C3025, C3026, C3099, C5891		CKSQYB104K25
	C3033, C3034, C3073, C3074		CKSQYB122K50
	C3003, C3004		CKSQYB221K50
	C3315, C3316		CKSQYB222K50
	C2323, C2326		CKSQYB223K50
	C2812, C2813		CKSQYB272K50
	C2808, C2809		CKSQYB332K50
	C2333, C2334		CKSQYB392K50
	C2807, C3051, C3052		CKSQYB472K50
	C3029, C3030		CKSQYB563K25
	C2307, C2308, C2331, C2332		CKSQYB681K50

Mark	No.	Description	Part No.
	C3019, C3020, C3031, C3032		CKSQYB682K50
	C3503, C3504		CKSQYB682K50
	C3331-C3333, C3335-C3338		CKSQYF104Z50
	C2801		CQHA822J2A
	C2806		CQMBA223J50
RESISTORS			
	R2812		RD1/2LMF270J
	R2809		RD1/2LMF4R7J
	R3333, R3334		RD1/4LMF101J
	R3353, R3354		RD1/4PU101J
	R61		RD1/4PU102J
	R73		RD1/4PU103J
	R3081		RD1/4PU221J
	R72		RD1/4PU562J
	R3317, R3318		RD1/4PU563J
△	R3991, R3992		RS2LMF331J
	R3601, R3602		RS3LMFR22J
	VR2802 (100kΩ)		VCP1162
	Other Resistors		RS1/10S□□□□

OTHERS

	15P CABLE HOLDER	51063-1505
CN1052	8P FFC CONNECTOR	52045-0845
CN5102	25P FFC CONNECTOR	52045-2545
CN3331	4P SPEAKER TERMINAL	AKE7001
3991	HEADPHONE JACK	AKN-056
X5751	CRYSTAL RESONATOR (4.332MHz)	ASS7004
CN2302	KR CONNECTOR	B2B-PH-K-S
CN2303	KR CONNECTOR	B3B-PH-K-R
CN2301	KR CONNECTOR 3P	B3B-PH-K-S
J11	JUMPER WIRE	D15A15-350-2651
CN3051	14P PLUG	KM200IB14
	PCB BINDER	VEF1040
JA3001	2P PIN JACK	VKB1060

G SECONDARY ASSY**SEMICONDUCTORS**

△	IC71 (1.25A)	AEK7010
△	IC21, IC22 (7A)	AEK7021
△	IC41 (3A)	AEK7050
△	IC31 (4A)	AEK7053
△	IC11, IC12 (10A)	AEK7068
△	D11	G5SBA20L
△	D21	GBU4DL-5303
	D31, D41	S1WB(A)60BSD

CAPACITORS

	C21, C22	CEAT332M50
△	C11, C12 (4700μF/80V)	XCH3001

OTHERS

CN11	15P JUMPER CONNECTOR	KPE15
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H PRIMARY ASSY

PRIMARY ASSY has no service part.

XR-A670, XR-A370

Mark	No.	Description	Part No.
I SUB TRANS ASSY			
SEMICONDUCTORS			
△	IC81		NJM7805FA
	Q81		2SD1859X
	D85,D88-D90		1SS133
△	D81		S1WB(A)60-4062
COIL			
	L1	LINE FILTER	ATF1136
TRANSFORMER			
△	T2		XTT3004
RELAY			
	RY81		ASR7018
CAPACITORS			
	C1,C2 (10000pF/AC250V)		ACG7020
	C83		CEAT100M50
△	C82		CEAT102M25
RESISTORS			
	All Resistors		RD1/4PU□□□J
OTHERS			
	CN81	4P JUMPER CONNECTOR	52147-0410
	H1,H2	FUSE CLIP	AKR7001
	AN1	1P AC INLET	XKP3041
		EARTH PLATE C	XNG3028

J DISPLAY ASSY

SEMICONDUCTORS

	IC5501		PDC057A
	Q5501		2SA1037K
	Q2903,Q2906,Q2908		2SB1132
	Q5604,Q5801		2SC2412K
	Q2910,Q2911		DTA124EK
	Q5606		DTC124EK
	Q2901,Q2904,Q2907,Q5502		DTC143EK
	Q5601-Q5603,Q5610-Q5613		DTC143EK
	Q5615-Q5620,Q5622,Q5821		DTC143EK
	D5593-D5596,D5811		1SS133
	D5551-D5554,D5561-D5568		1SS181
	D2901-D2903,D5570,D5626,D5631		1SS355
	D5901		1SS355
	D5613-D5616		MBG5064X
	D5651		MTZJ5.6A
	D5608		NSPBF50S-8451
	D5602,D5609-D5612		SLP3118C51H
	D5601,D5617,D5618		SLP7118C51H
	D5603,D5621,D5622		SLP9118C51H
COIL			
	L5811		LAU220J
SWITCHES			
	S5952		ASX7017
	S5911-S5917,S5919-S5936		XSG3001
	S5951		XSX3003

Mark	No.	Description	Part No.
CAPACITORS			
	C5812 (0.047F/5.5V)		ACH1246
	C5821		CEJA100M16
	C5803		CEJA1R0M50
	C5510,C5811,C5814		CEJA470M16
	C5804		CKSQYB102K50
	C5995,C5996		CKSQYB103K50
	C5816,C5997,C5998		CKSQYB104K25
	C5999		CKSQYB105K10
	C5509,C5951-C5954		CKSQYB471K50
	C5506-C5508		CKSQYB472K50
	C5634,C5901		CKSQYF104Z50
	C5625		CKSQYF224Z25
	C5503,C5504,C5813,C5822		CKSQYF473Z50
RESISTORS			
	R5554,R5561,R5562 (1.5kΩ)		ACN7062
	R5558,R5563,R5564 (47kΩ)		ACN7077
	R5506,R5508		RA7T104J
	R2907,R2909,R2910		RD1/4PU102J
	R5616,R5617		RD1/4PU104J
	R5928		RD1/4PU182J
	R5515		RD1/4PU223J
	R5605,R5606		RD1/4PU301J
	R5604		RD1/4PU391J
	R5529-R5531		RD1/4PU471J
	R2902		RD1/4PU681J
	Other Resistors		RS1/10S□□□J
OTHERS			
	81	4P CABLE HOLDER	51048-0400
	CN2903	17P FFC CONNECTOR	52045-1745
	CN5503	25P FFC CONNECTOR	52045-2545
	CN5501	FFC CONNECTOR 19P	52492-1920
	J81	JUMPER WIRE 04P	D20PYY0425E
	5901	REMOTE RECEIVER UNIT	GP1U28X
	5621	FL HOLDER	VNF1096
	V5621	FL TUBE	XAV3008
		LED HOLDER	XMR3006
	X5501	CERAMIC RESONATOR (6MHz)	RSS1050

6. ADJUSTMENT

6.1 TUNER SECTION

6.1.1 For MYXJ and NVXJ Types

■ FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	FM SG (1kHz, ± 75 kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dB μ V)			
1	Front End Sensitivity	106	0 to 30	106MHz	L6104 L6105 L6102 T6101	Adjust so that the DC voltage between the IC6201 - pin 20 and GND becomes at maximum level.
2	Stereo Distortion	98 (ON STEREO)	80	98MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
3	TUNED IND. Lighting Level	98	18 ± 2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Note:

Before adjusting, make sure there is no gap between L6101 and L6102 as well as between L6103 and L6104. If there is a gap between them, bring them into contact with each other first, and then make adjustments.

■ AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dB μ V/m)			
1	Front End Sensitivity	999 (*1)	35 to 45	999kHz (*1)	T6201	Adjust so that the DC voltage between the IC6201 - pin 20 and GND becomes at maximum level.

Note (*1) : For the area using 10kHz step, frequency should be 1000kHz.

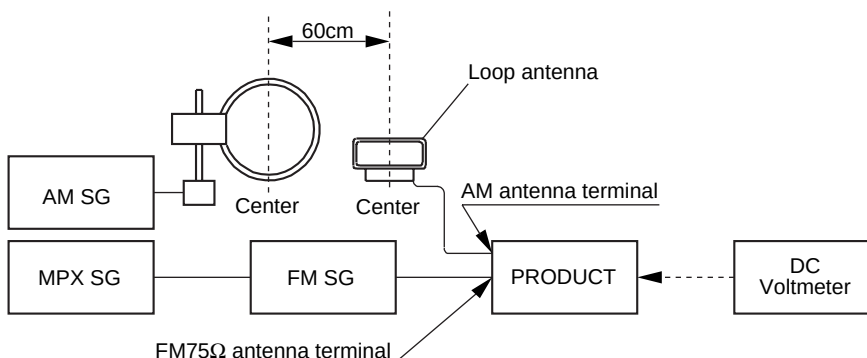


Fig.1 AM and FM Adjustment Wiring Diagram

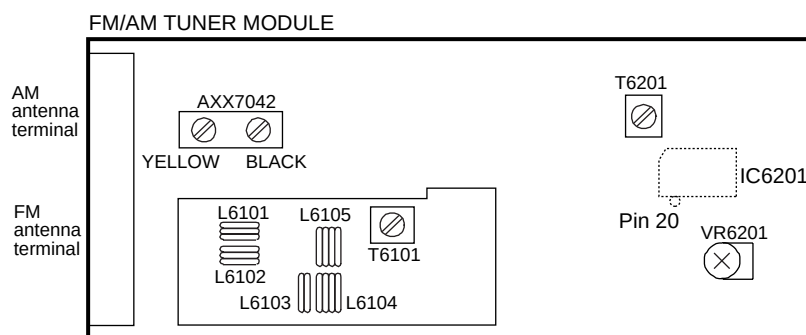


Fig.2 Adjustment Point

6.1.2 For KUCXJ Type

■ FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 3.

Step No.	Adjustment Title	FM SG (1kHz, ± 75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Front End Sensitivity	98	0 to 30	98MHz	L6402 T6401	Adjust so that the DC voltage between the IC6201 - pin 20 and GND becomes at maximum level.
2	TUNED IND. Lighting Level	98	18 ± 2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. strats to light up.

Note:
Before adjusting, make sure there is no gap between L6401 and L6402. If there is a gap between them, bring them into contact with each other first, and then make adjustments.

■ AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 3.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	Front End Sensitivity	999 (*1)	35 to 45	999kHz (*1)	T6201	Adjust so that the DC voltage between the IC6201 - pin 20 and GND becomes at maximum level.

Note (*1) : For the area using 10kHz step, frequency should be 1000kHz.

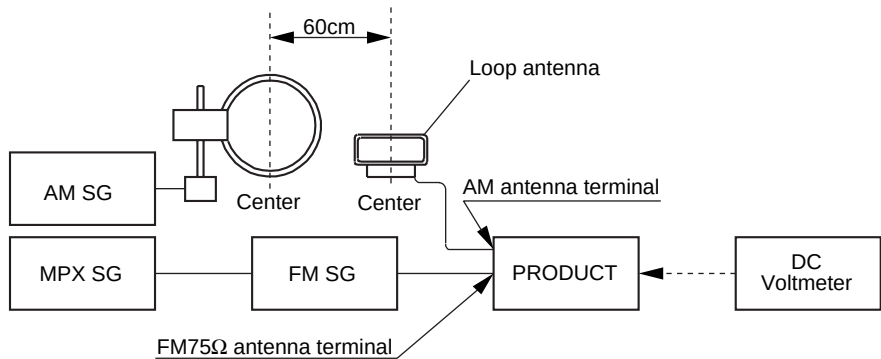


Fig.3 AM and FM Adjustment Wiring Diagram

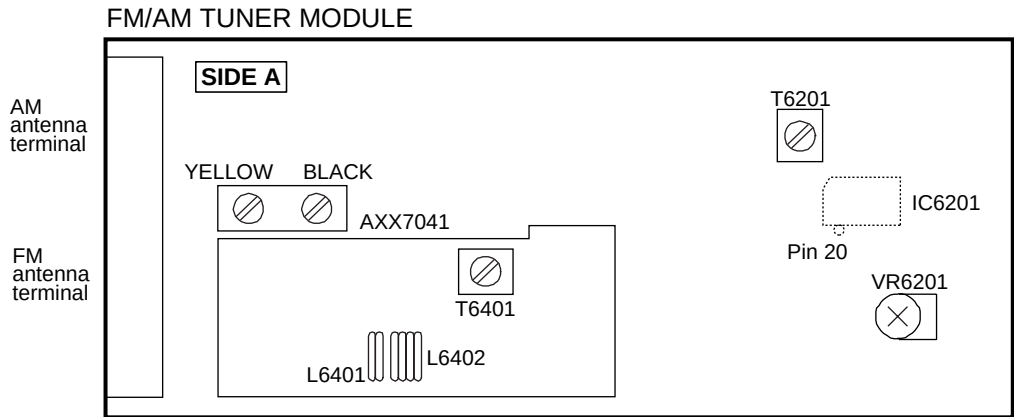


Fig.4 Adjustment Point

6.2 CASSETTE DECK SECTION

6.2.1 For XR-A670

• Adjustment points and test points are shown in Fig.5, Fig.7 and Fig.9.

■ Mechanical Adjustment

• Test tape : NCT-111 (3kHz, 30min).

1. Tape Speed Adjustment

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Procedure	Remarks
1	Deck I PLAY	NCT-111 (Playback : 3kHz)	ADJ. VR on CASSETTE MECHA (Fig. 5)	TAPE TEST POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes $3000\text{Hz} \pm 20\text{Hz}$. Confirm that wow & flutter level is below 0.3% (in the reverse direction, confirm that the reading is within $3000\text{Hz} \pm 60\text{Hz}$).	

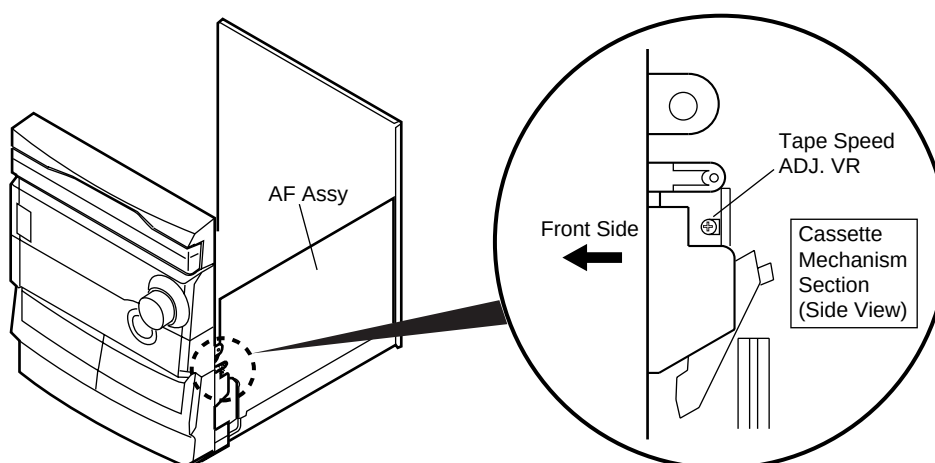


Fig.5 Tape Speed ADJ. Point

■ Electrical Adjustment

Check the following before starting.

- (1) Confirm that the tape speed adjustment has been completed.
- (2) Clean the heads and demagnetize them using a head eraser.
- (3) Set the measurement level to $0\text{ dBV} = 1\text{ Vrms}$.
- (4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
STD-331E : For playback check
STD-632 : Normal blank tape
- (5) Provide yourself with the following measuring devices:
 - AC millivoltmeter
 - Low-frequency oscillator
 - Attenuator
 - Oscilloscope
- (6) Adjust both right and left channels unless otherwise specified.
- (7) Turn the DOLBY NR switch off unless otherwise specified.
- (8) Warm up the unit for several minutes before adjustment.
In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
- (9) Always follow the indicated adjustment order.
Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

- (1) Head Azimuth Adjustment
- (2) Playback Level Adjustment

Recording Adjustment (Deck I)

- (1) Bias Oscillation Frequency Adjustment
- (2) Recording Bias Adjustment
- (3) Recording Level Adjustment.
- (4) ALC Operation Check

* As the reference recording level is 250 nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160 nwb/m). When adjusting, pay carefull attention to the type of tape used.

*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

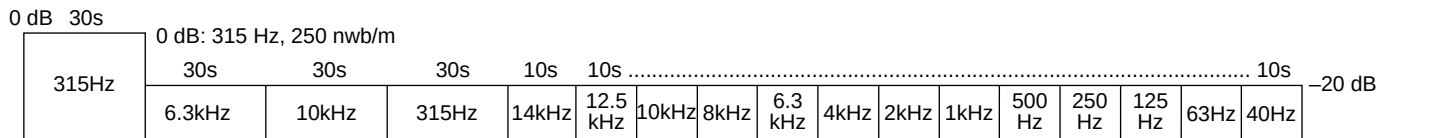


Fig.6 STD-331E Test Tape

■ Playback Adjustment

(1) Head Azimuth Adjustment

• Do not switch between forward and reverse operation with the screwdriver inserted.

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 10kHz, -20dB)	Deck I	Head azimuth adjustment screw (Fig. 7)	TAPE TEST POINT (L, Rch) (AF Assy)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.
			Deck II				

(2) Playback Level Adjustment

• Since this adjustment determines playback dolby NR level, perform it carefully.

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 315Hz, 0dB)	Deck I	VR2303 (L ch) VR2304 (R ch)	TAPE TEST POINT (L, Rch) (AF Assy)	- 3.7dBV	
			Deck II	VR2305 (L ch) VR2306 (R ch)			

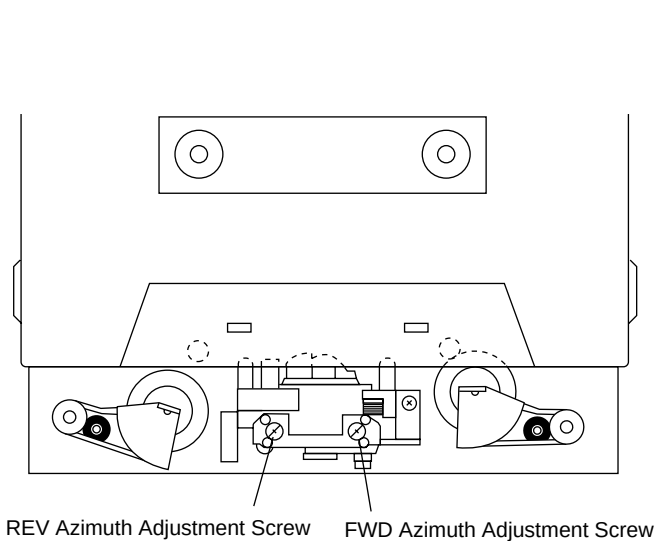


Fig. 7 Head Azimuth Adjustment Screw

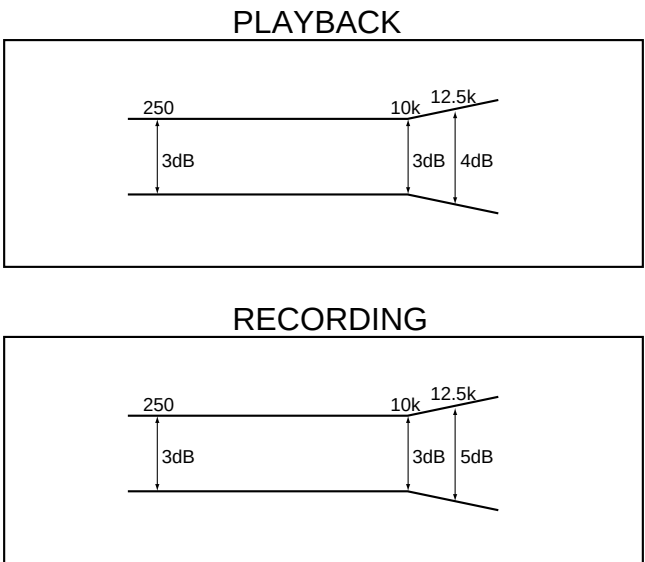


Fig. 8 Frequency Characteristics

■ Recording Adjustment

(1) Bias Oscillation Frequency Adjustment

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Load the STD-632 test tape and set the recording mode.	Deck II	_____	_____	Oscillation frequency to be 105.0kHz $\pm$ 2kHz.	If the REC/STOP button for four seconds while the power is in STAND BY mode, the frequency will decrease 2 to 3 kHz.
			Deck I	L2801 (AF Assy)	Between ① point Fig. 9 and GND		

(2) Recording Bias Adjustment

- Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Input a 315 Hz signal to the AUX terminal and set the input selector to AUX.	Deck II	_____	TAPE TEST POINT (L, Rch) (AF Assy)	– 23.7 dBV	
			Deck I	Input signal level			
2	REC → PLAY	Load the STD-632 test tape and record/playback the 315Hz and 10kHz signals (see the Note below)	Deck II	_____	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat adjustment until playback level of the 10kHz signal is within 0 $\pm$ 0.5 dB from that of the 315Hz signal.	
			Deck I	VR2801 (L ch) VR2802 (R ch)			

Note : Set the 10 kHz input signal level to the same value as the 315 Hz input signal level of step 1.

(3) Recording Level Adjustment

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Input a 315 Hz signal to the AUX terminal and set the input selector to AUX.	Deck II	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 7.7 dBV	
			Deck I				
2	REC → PLAY	Load the STD-632 test tape and record/playback the 315Hz signal.	Deck II	_____	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat recording, playback and adjustment until playback level of the 315 Hz signal becomes – 7.7 dBV.	
			Deck I	VR2301 (L ch) VR2302 (R ch)			

(4) ALC Operation Check

Step	Mode	Input Signal/Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	REC/ PAUSE	Input a 315 Hz signal to the AUX terminal and set the input selector to AUX.	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 8.2 dBV	
2			Set to a level + 10dB above the input level at step 1.		Confirm that the reading is – 2.2 ± 2.5 dBV.	

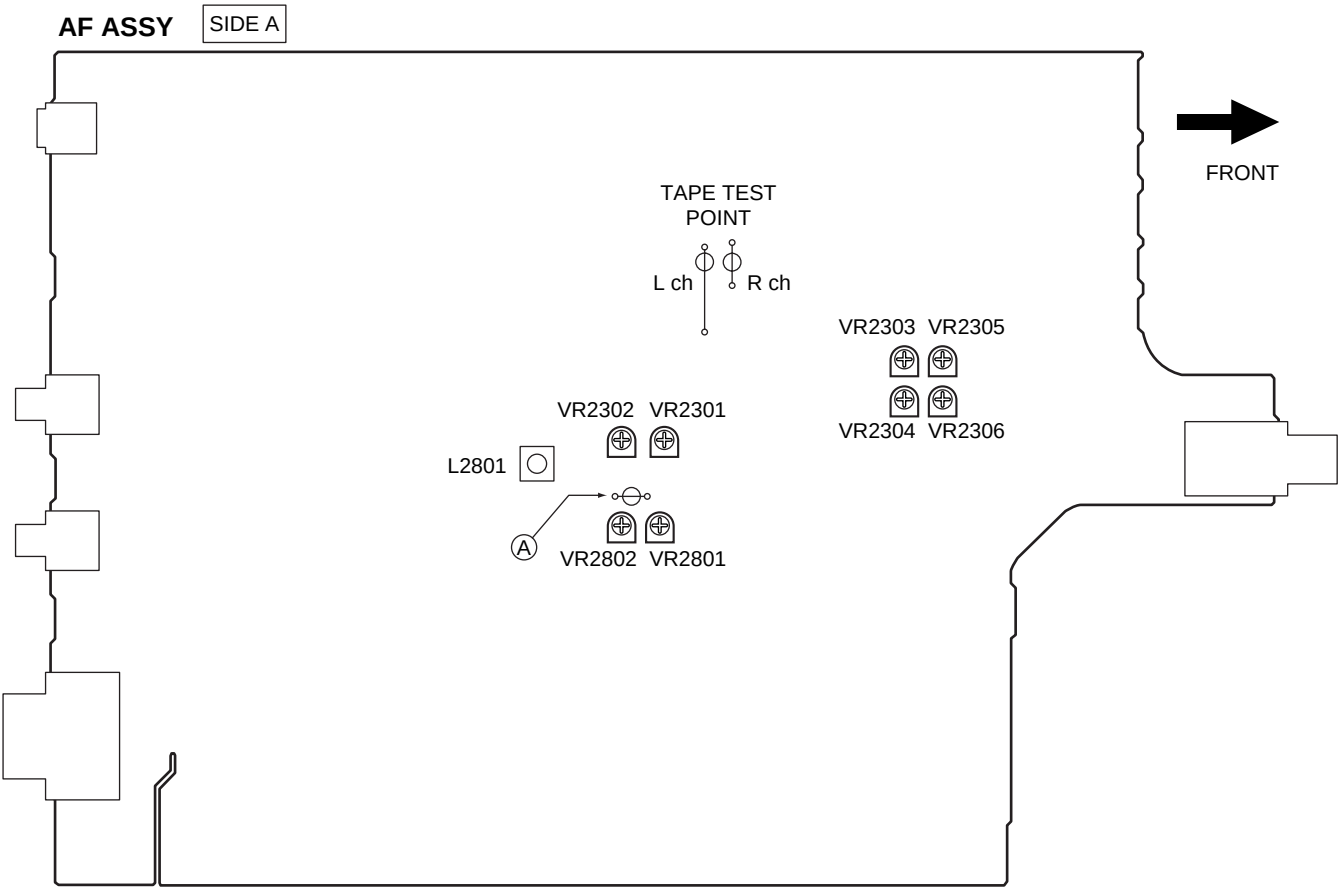


Fig.9 Adjustment and Measurement Points

6.2.2 For XR-A370

• Adjustment points and test points are shown in Fig.10, Fig.12 and Fig.13.

■ Mechanical Adjustment

• Test tape : NCT-111 (3kHz, 30min).

1. Tape Speed Adjustment

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Procedure	Remarks
1	Deck I PLAY	NCT-111 (Playback : 3kHz)	ADJ. VR on CASSETTE MECHA (Fig. 10)	TAPE TEST POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes 3000Hz ± 20Hz. Confirm that wow & flutter level is below 0.3% (in the reverse direction, confirm that the reading is within 3000Hz ± 60Hz).	

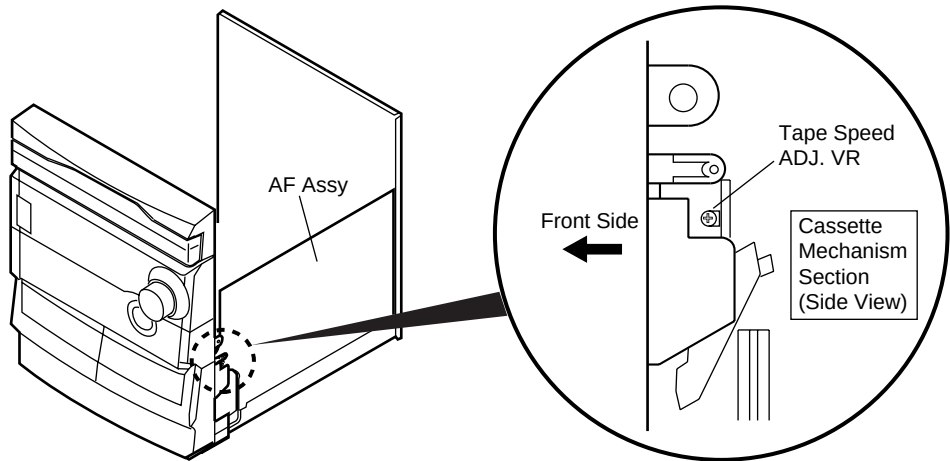


Fig.10 Tape Speed ADJ. Point

■ Electrical Adjustment

Check the following before starting.

- (1) Confirm that the tape speed adjustment has been completed.

(2) Clean the heads and demagnetize them using a head eraser.

(3) Set the measurement level to 0 dBV = 1 Vrms.

(4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
STD-331E : For playback check
STD-632 : Normal blank tape

(5) Provide yourself with the following measuring devices:
 - AC voltmeter (Noisemeter : filter off)
 - AC millivoltmeter
 - Low-frequency oscillator
 - Attenuator
 - Oscilloscope

(6) Adjust both right and left channels unless otherwise specified.
- (7) Warm up the unit for several minutes before adjustment.
In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.

(8) Always follow the indicated adjustment order.
Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

- (1) Head Azimuth Adjustment

Recording Adjustment (Deck I)

- (1) Bias Oscillation Frequency Adjustment
(2) Recording Bias Adjustment

* As the reference recording level is 250nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160nwb/m). When adjusting, pay carefull attention to the type of tape used.

0 dB 30s		0 dB: 315 Hz, 250 nwb/m																		
315Hz	30s	30s	30s	10s	10s											10s				-20 dB
	6.3kHz	10kHz	315Hz	14kHz	12.5 kHz	10kHz	8kHz	6.3 kHz	4kHz	2kHz	1kHz	500 Hz	250 Hz	125 Hz	63Hz	40Hz				

Fig.11 STD-331E Test Tape

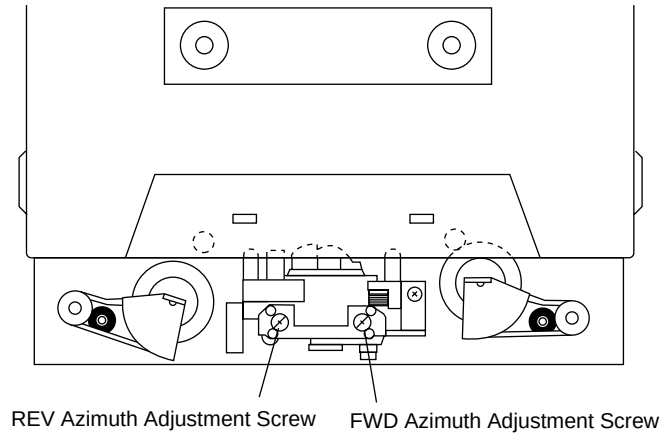


Fig.12 Head Azimuth Adjustment Screw

■ Playback Adjustment

(1) Head Azimuth Adjustment

• Do not switch between forward and reverse operation with the screwdriver inserted.

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 10kHz, -20dB)	Deck I	Head azimuth adjustment screw (Fig. 12)	TAPE TEST POINT (L, Rch) (AF Assy)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.
			Deck II				

■ Recording Adjustment

(1) Bias Oscillation Frequency Adjustment

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Load the STD-632 test tape and set the recording mode.	Deck II	_____	_____	Oscillation frequency to be 105.0kHz $\pm$ 2kHz.	
			Deck I	L2801 (AF Assy)	Between ① point Fig. 13 and GND		

(2) Recording Bias Adjustment

• Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Load the STD-632 test tape and record (No signal)	Deck I	VR2802 (AF Assy)	BIAS TP POINT (AF Assy)	24V to 27V	
2	REC → PLAY	Load the STD-632 test tape. Record the 315Hz and 10kHz signals at -25dBV input level (check ② point) and playback.	Deck II	_____	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat adjustment until playback level of the 10kHz signal is within 0 $\pm$ 1.0dB from that of the 315Hz signal.	
			Deck I	VR2802 (AF Assy)			

Note : No connecting to BIAS TP POINT at Step 2 REC → PLAY.

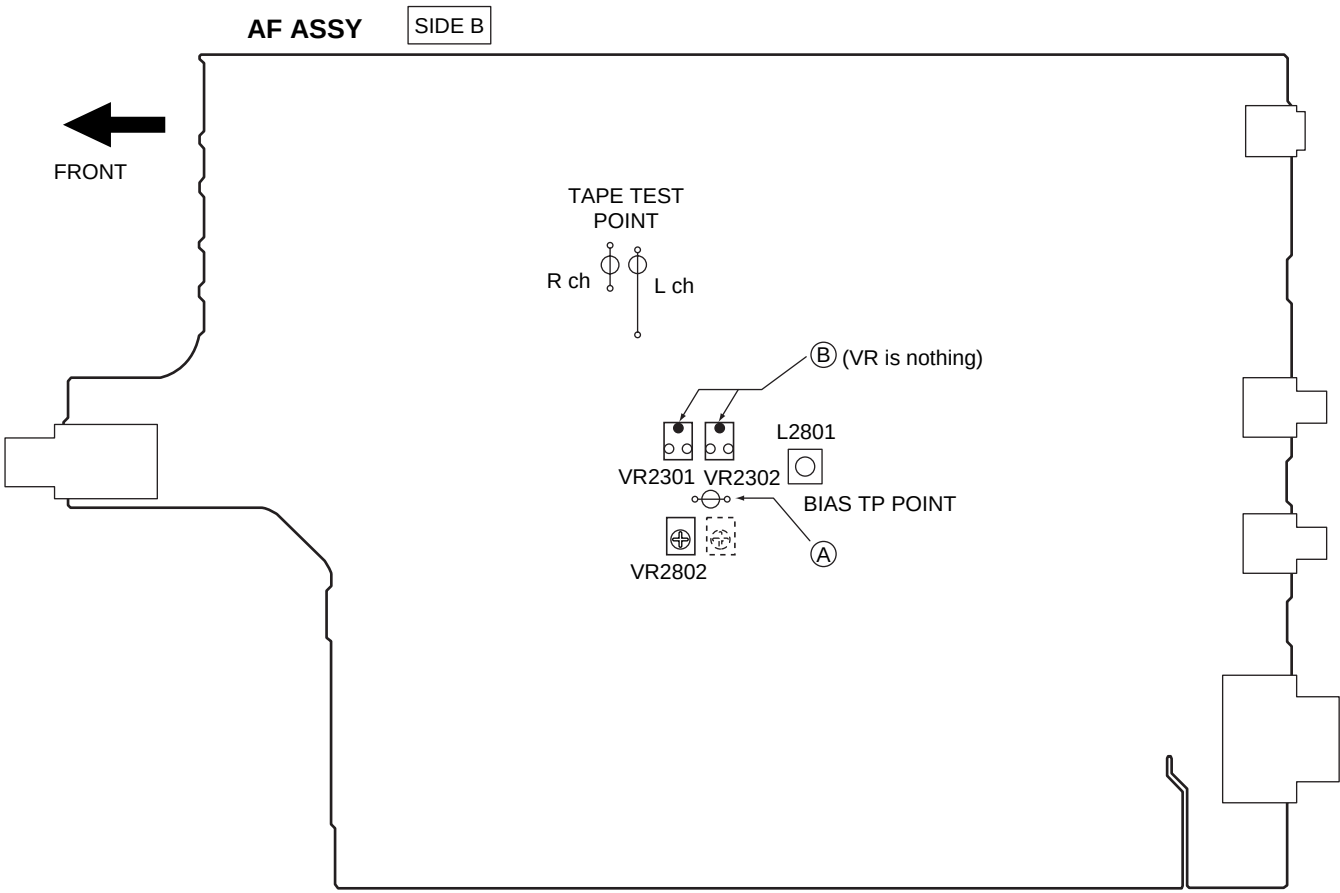


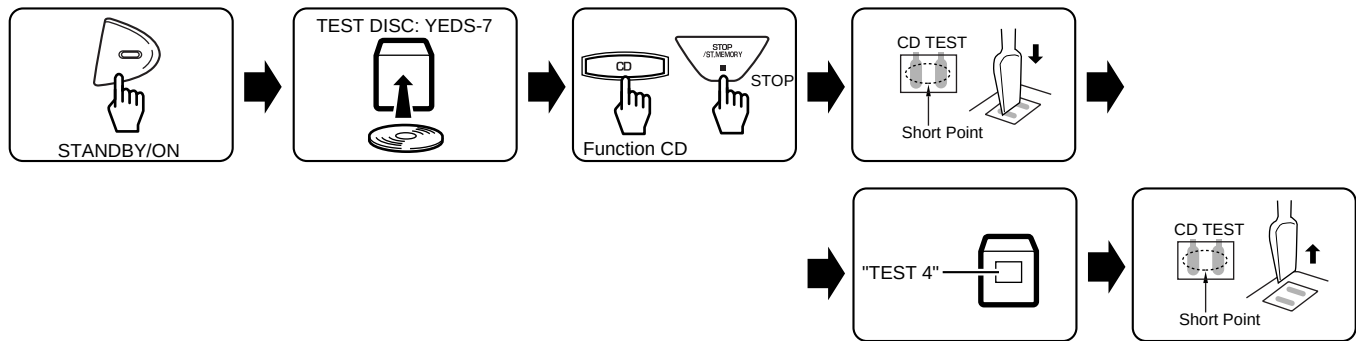
Fig.13 Adjustment and Measurement Points

6.3 TEST MODE

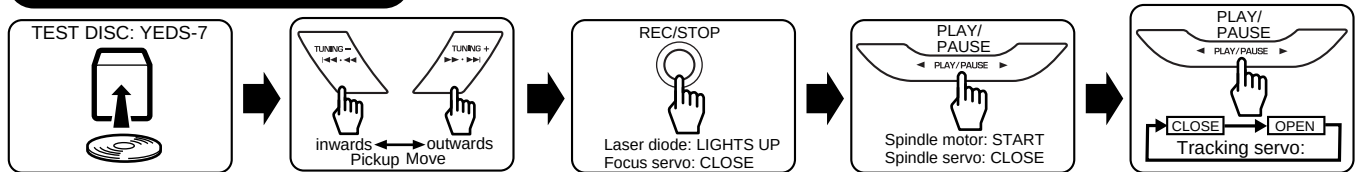
NOTE: There is no information to be shown in this CD adjustment.

■ How to Start/Cancel Test Mode

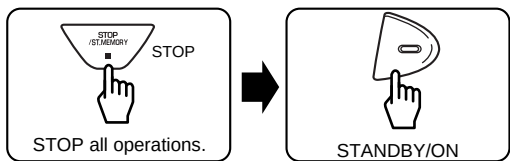
TEST MODE : ON



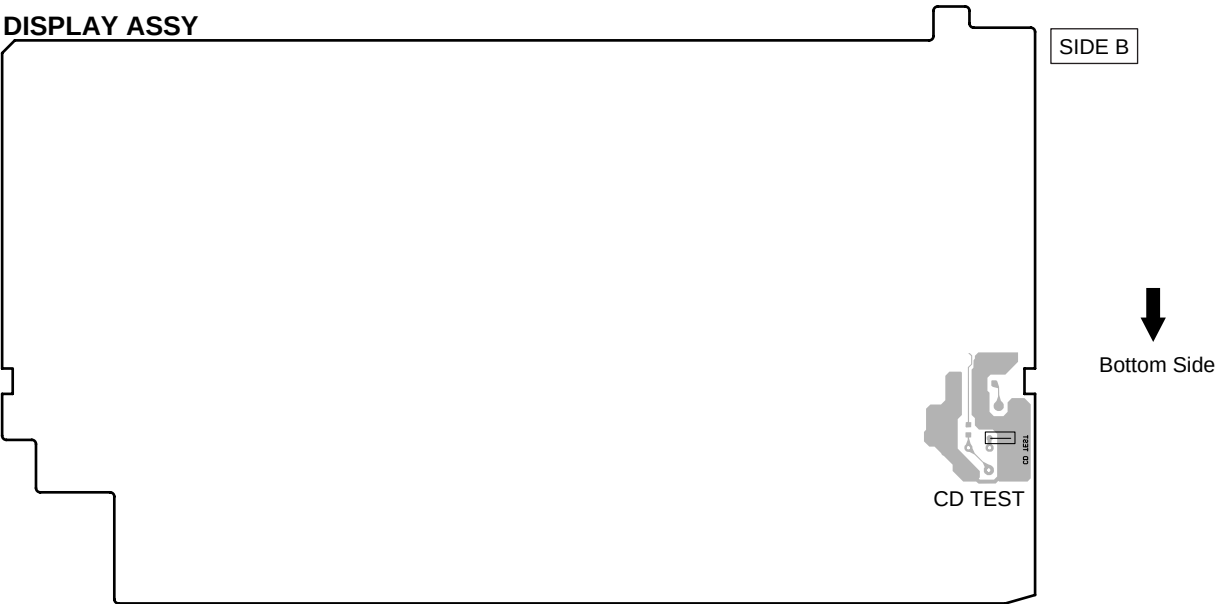
TEST MODE : PLAY



TEST MODE : STOP CANCEL



■ Test Point

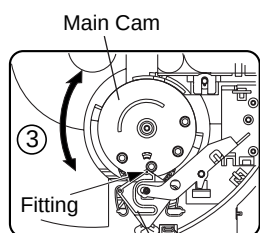
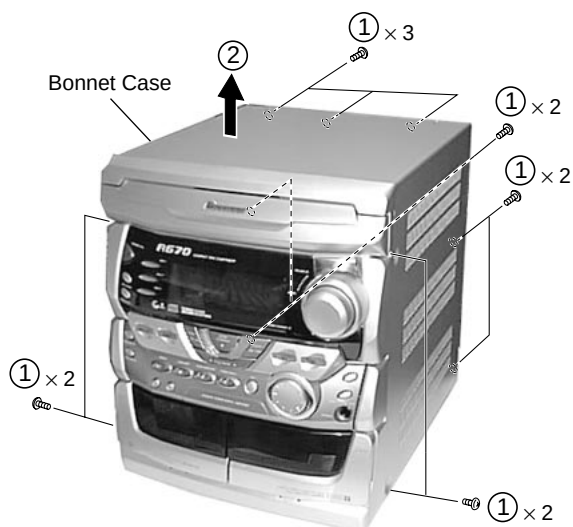


7. GENERAL INFORMATION

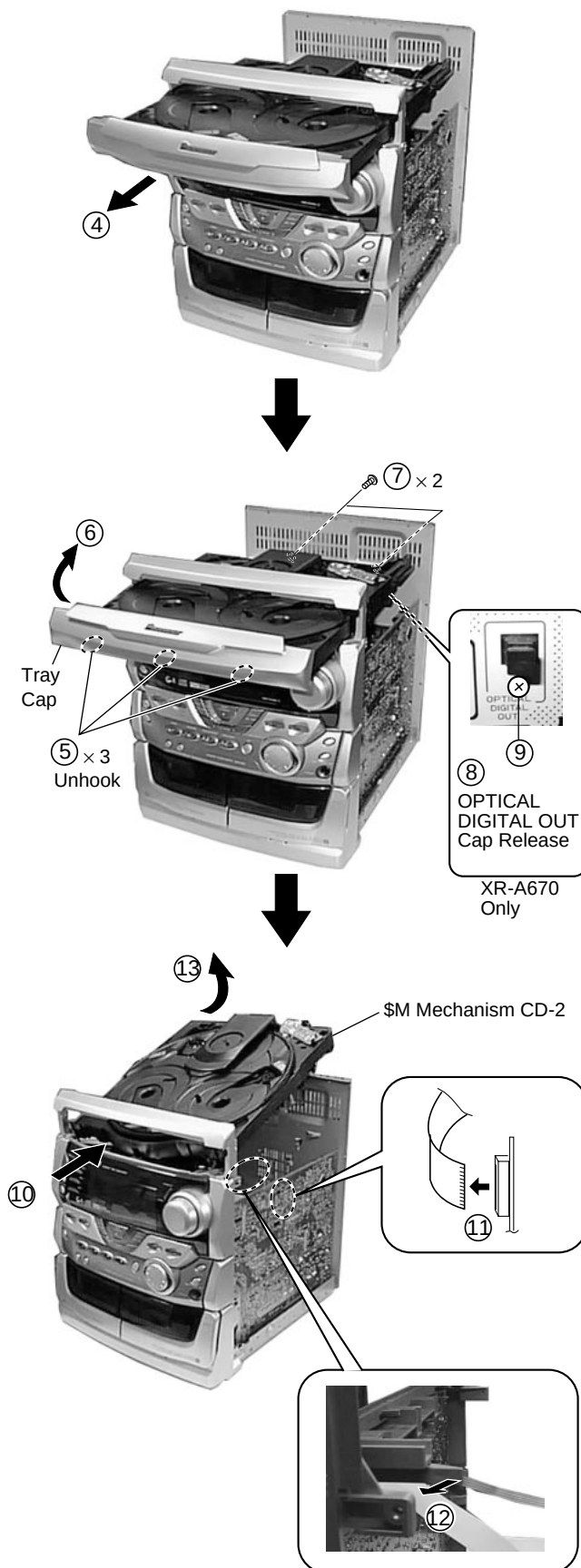
7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

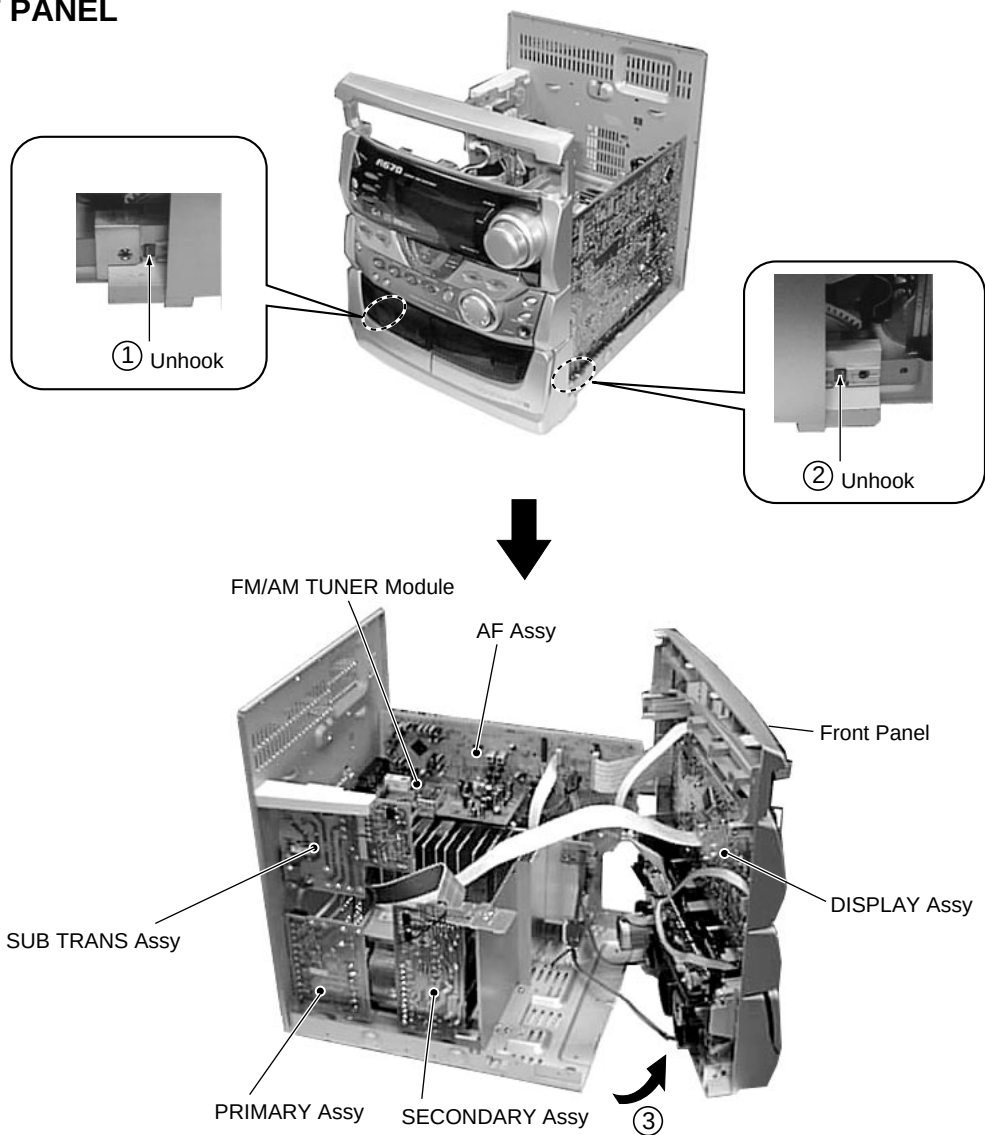
■ \$M MECHANISM CD-2



Note: The loading tray can be pulled out when the main cam is in this position. (The Lock Lever should be in the notch of the Main Cam.)

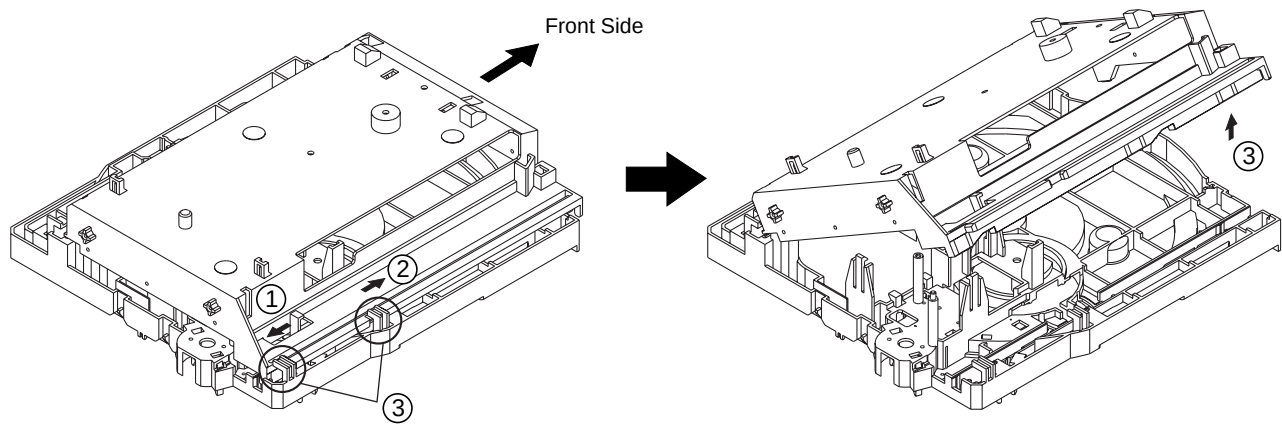


FRONT PANEL

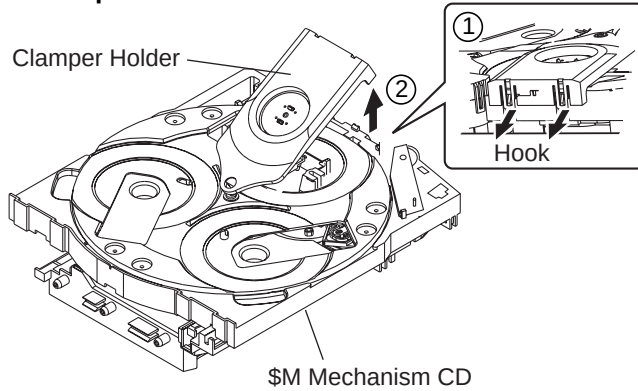


\$M MECHANISM CD-2 ADDITIONAL TO JOB

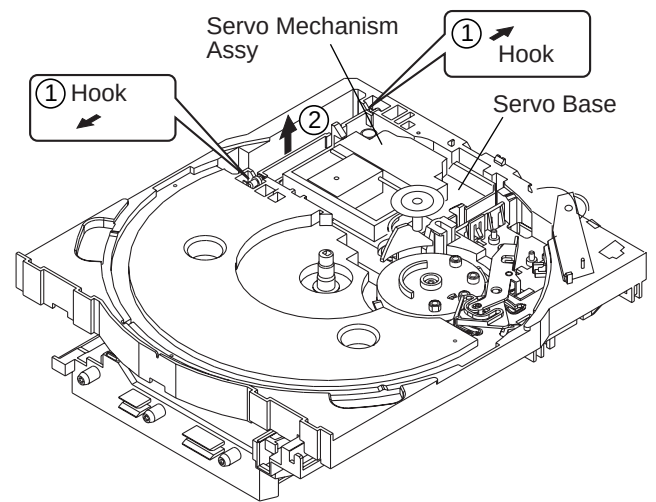
● Mechanism Base (Bottom View)



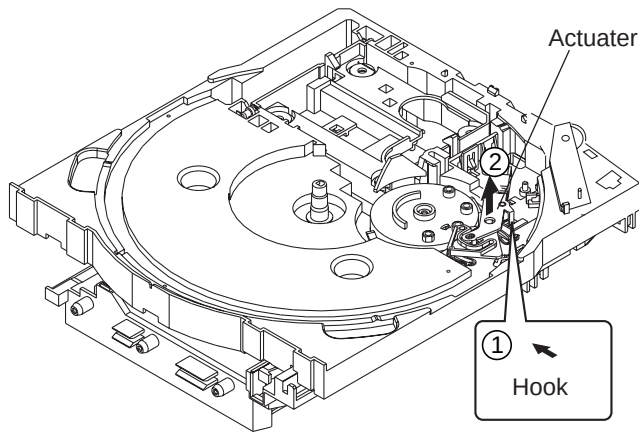
● Clamper Holder



● Servo Base

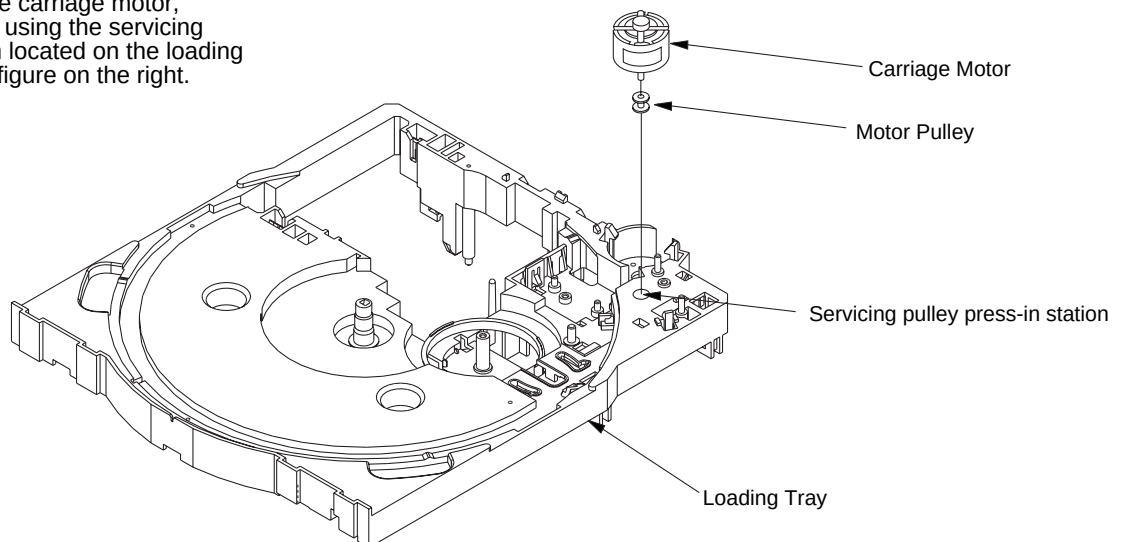


● Actuator



■ FITTING THE PULLEY INTO THE CARRIAGE MOTOR

For replacement of the carriage motor, fit the motor pulley by using the servicing pulley press-in station located on the loading tray, as shown in the figure on the right.



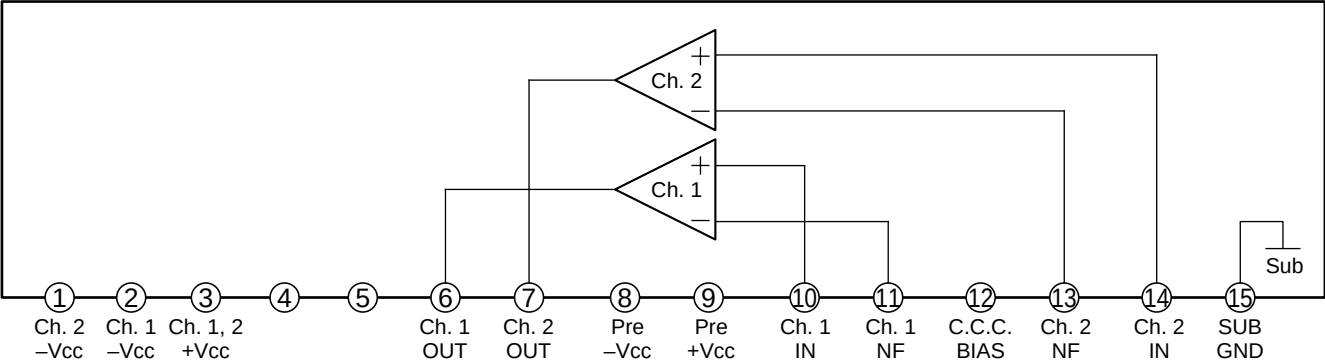
7.2 PARTS

7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ STK407-100B (AF ASSY : IC3301)(XR-A670 Only)

- Power Amp. IC
- Block Diagram



PDC057A (DISPLAY ASSY : IC5501)

• System Control Microcomputer

• Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function	
1	CD RESET	O	Reset output for CD LSI	51	VFDP	–		
2	CD SE CLK	O	CD SENS readout clock	52	D5593/S05	I/O	FL display control segment	
3	CD SENS	I	CD SENS data input	53	D5592/S06			
4	CD LAT	O	Strobe output for CD	54	D5591/S07			
5	CD DCLK	O	CD DATA readout clock	55	S08			O
6	CD DATA	O	CD DATA output	56	CLAMP/S09	I/O		
7	PBASS LED	O	LED Control	57	OPEN/S10			
8	ZOOM SR. LED			58	INSIDE/S11			
9	EQ LED			59	DISC123/S12			
10	PRESET LED			60	ARR/S13			
11	AC	I	AC pulse input power supply	61	ARF/S14			
12	XRESET	I	CPU reset input	62	MODE1/S15			
13	REEL1	I	Pulse input for deck 2 reel	63	MODE2/S16			
14	REEL2	I	Pulse input for deck 1 reel	64	HALF1/S17			
15	VSS	–	GND	65	HALF2/S18			
16	CF1	I		66	CrO2_1/S19			
17	CF2	O		67	CrO2_2/S20			
18	VDD	–	Power supply	68	S21	O		
19	KEY1	I	Front key input 1	69	S22	O		
20	KEY2	I	Front key input 2	70	S23	O		
21	KEY3	I	Front key input 3	71	RDS DATA	I/O	Data input for RDS	
22	MS	I	DECK MS signal input	72	VDD	–	Power supply	
23	ST/TUNE	I	Tuner tuned (STEREO) detection	73	SOL2	O	Deck 1 solenoid control	
24	SPE-IN	I	Spectrum analyzer signal input	74	SOL1	O	Deck 2 solenoid control	
25	TIMER LED	O	LED control	75	MOTOR	O	Deck motor control	
26	CD MUTE	O	CD mute control	76	CD LOAD IN	O	CD load in control	
27	SCOR	I	Outputs high signal when either subcode sync S0 or S1 is detected	77	CD LOAD OUT	O	CD load out control	
28	RDS CLK	I	Clock input for RDS IC (BU1923)	78	DISC3	O	DISC 3 LED control	
29	REMOCON	I	Remote control signal input	79	DISC2	O	DISC 2 LED control	
30	G01	O	FL display control grid	80	DISC1	O	DISC 1 LED control	
31	G02			I	Pulse input for volume JOG			
32	G03							
33	G04			I	Pulse input for sound morphing JOG			
34	G05							
35	G06			85	PLL CE	O	TUNER PLL IC strobe output	
36	G07			86	EVOL CE	O	Main volume control IC strobe output	
37	G08			87	POWER	O	Main power control	
38	G09			88	LINE MUTE	O	Line mute control	
39	G10			89	VSS	–	GND	
40	G11			90	VDD	–	Power supply	
41	G12			91	EXP CLK	O	Clock for EXP IC (BU4094BCF)	
42	G13			92	EXP DATA	O	Data for EXP IC (BU4094BCF)	
43	G14			93	EXP CE	O	Strobe for EXP IC (BU4094BCF)	
44	G15			94	SCAN ON	O	Key scan input control	
45	G16			95	CD SHUT	O	ON/OFF control for CD	
46	VDD	–	Power supply	96	SQSO	I	Sub Q data output	
47	D5597/S01	I/O	FL display control segment	97	SQCK	O	SQSO readout clock	
48	D5596/S02			98	SYSDATA	O	Serial data output	
49	D5595/S03			99	TXDATA	I	Serial data input	
50	D5594/S04			100	SYS CLK	O	Serial clock output	

• Pin Connection

Pin No.	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27
Connection	F2	F2	F2	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	15G	16G	P1	P2	P3	P4	P5	P6
Pin No.	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Connection	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	NX	NX	NX	NX	NP	NP	F1	F1	F1	

NOTE 1) F1, F2..... Filament
 2) NP..... No pin
 3) NX..... No extend pin
 4) DL..... Datum Line
 5) 1G to 14G..... Grid
 6) Set view angle to 25.8° minimum at lower side.

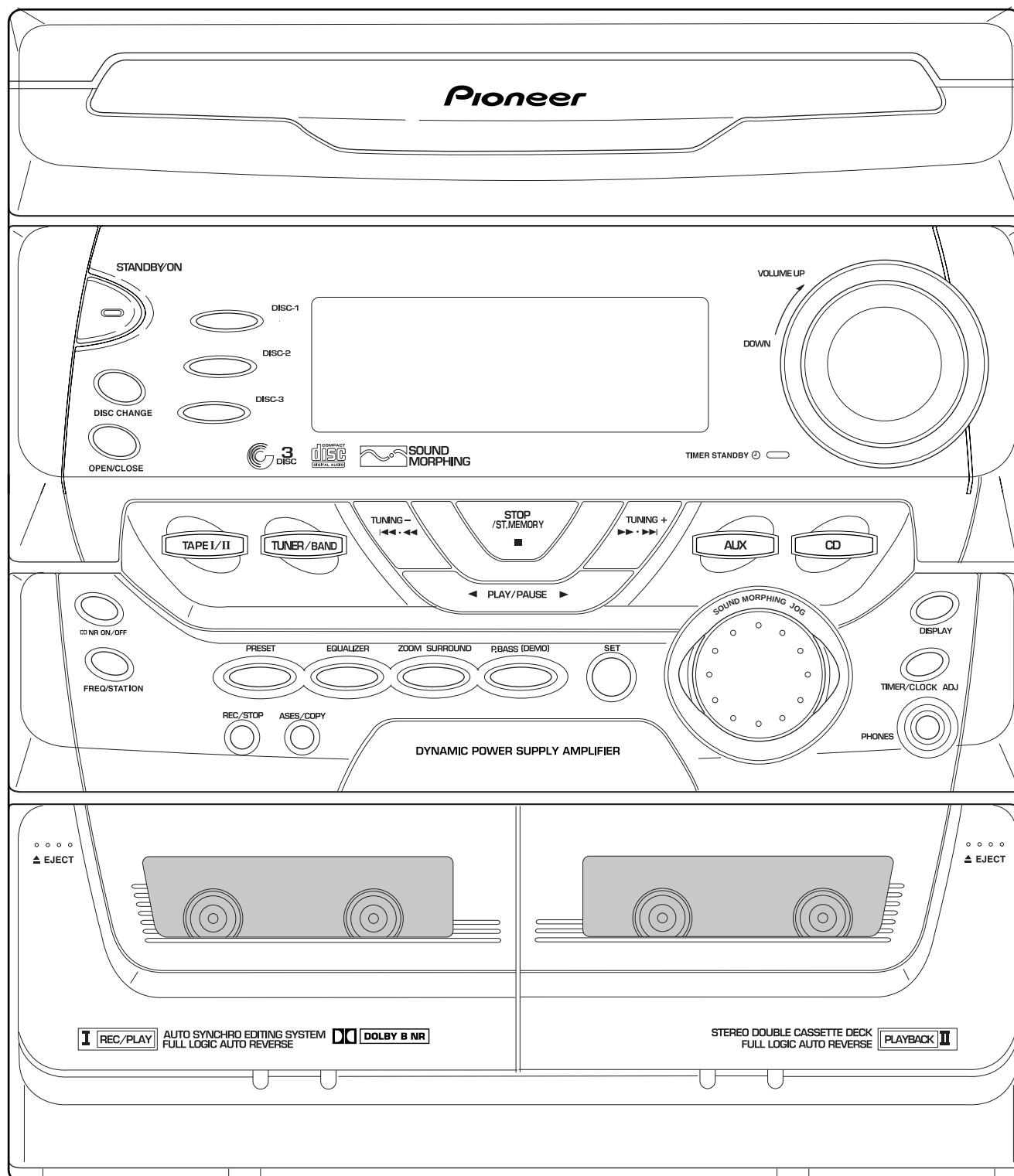
• Anode Connection

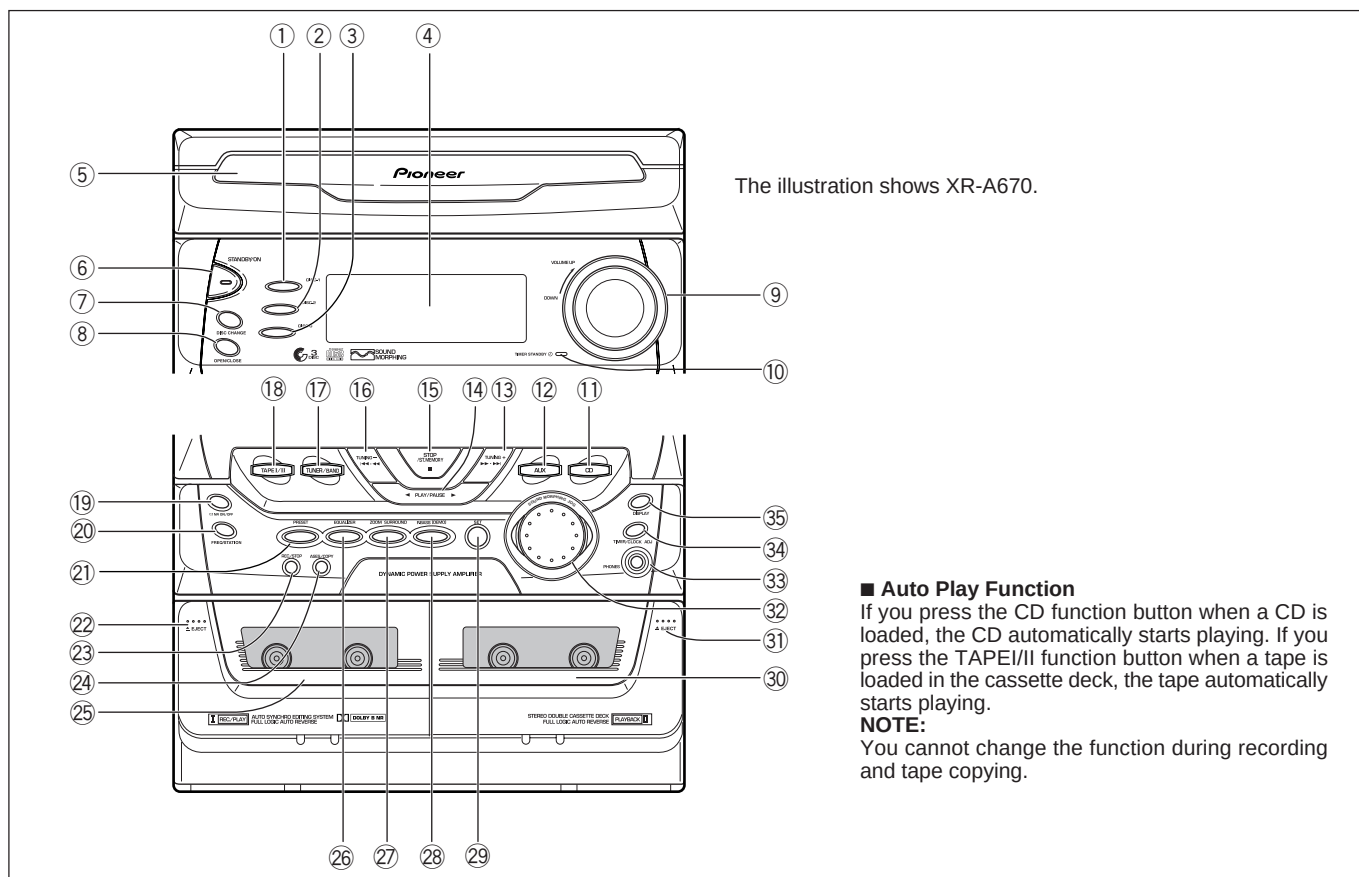
	1G	2G	3G,4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	15G	16G
P1		a1	a1	a1	a1	a1	a1	a1		RPT	—	—	LAST MEMO	EQ	B.B.
P2		a2	a2	a2	a2	a2	a2	a2	B22	-1	—	—	96kHz	[EQ]	B22
P3	I(RIGHT)	h	h	h	h	h	h	h	B21	[ATT-]	—	B21	CONDITION	SUPP.	B21
P4	▷(UPPER)	j	j	j	j	j	j	j	B20	PGM	—	B20	DOLBY DIGITAL	[P.BASS]	B20
P5		k	k	k	k	k	k	k	B19	[P.BASS]	—	B19	—	P.BASS	B19
P6		b	b	b	b	b	b	b	B18	RDM	—	B18	—	[P.BASS]	B18
P7	▷(LOWER)	f	f	f	f	f	f	f	B18	[P.BASS]	—	B18	—	—	B18
P8	ASES	g	g	g	g	g	g	g	B16	—	—	B16	—	—	B16
P9	○(LEFT)	m	m	m	m	m	m	m	B15	—	—	B15	—	—	B15
P10	REC	c	c	c	c	c	c	c	B8	B8	B8	B8	B8	B8	B8
P11		e	e	e	e	e	e	e	B1	B1	B1	B1	B1	B1	B1
P12	KEY	r	r	r	r	r	r	r	B9	B9	B9	B9	B9	B9	B9
P13	L	p	p	p	p	p	p	p	B2	B2	B2	B2	B2	B2	B2
P14	R	n	n	n	n	n	n	n	B10	B10	B10	B10	B10	B10	B10
P15	NR	d1	d1	d1	d1	d1	d1	d1	B3	B3	B3	B3	B3	B3	B3
P16		d2	d2	d2	d2	d2	d2	d2	B11	B11	B11	B11	B11	B11	B11
P17		dp1	dp1	dp1	dp1	dp1	dp1	dp1	B4	B4	B4	B4	B4	B4	B4
P18		—	—	dp2	—	dp2	—	—	B12	B12	B12	B12	B12	B12	B12
P19		—	—	—	—	—	—	—	B5	B5	B5	B5	B5	B5	B5
P20	○(RIGHT)	s	—	—	—	—	—	—	B13	B13	B13	B13	B13	B13	B13
P21		t	—	—	—	—	—	—	B6	B6	B6	B6	B6	B6	B6
P22	—	u	—	—	—	—	—	—	B14	B14	B14	B14	B14	B14	B14
P23	—	w	—	—	—	—	—	—	B7	B7	B7	B7	B7	B7	B7

8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

■ Front Panel Section





■ Auto Play Function

If you press the CD function button when a CD is loaded, the CD automatically starts playing. If you press the TAPE I/II function button when a tape is loaded in the cassette deck, the tape automatically starts playing.

NOTE:

You cannot change the function during recording and tape copying.

① DISC-1 select button & indicator

② DISC-2 select button & indicator

③ DISC-3 select button & indicator

④ Display

⑤ CD disc tray

⑥ STANDBY/ON switch

<TURNING ON THE POWER>

- When the power plug is connected to an AC wall outlet, the unit enters the demonstration mode. Press the Power button to cancel the demonstration mode.

Press the STANDBY/ON switch.

To switch the power OFF (STANDBY):

Press the STANDBY/ON switch.

"GOOD BYE" is displayed.

Standby indicator lights.

⑦ DISC CHANGE button

⑧ OPEN/CLOSE button (Also switches power on if in standby.)

⑨ Volume control (VOLUME)

⑩ TIMER STANDBY indicator

⑪ CD function button (Also switches power on if in standby.)

⑫ AUX function button

(Also switches power on if in standby. If the auxiliary component is already playing, then you'll hear it.)

⑬ TUNING + ►► • ►►► button *

⑭ PLAY/PAUSE button *

(Also switches power on if in standby.)

⑮ STOP/ST.MEMORY button *

⑯ TUNING - ◀◀◀ • ◀◀ button *

⑰ TUNER/BAND function button

(Also switches power on if in standby.)

⑱ TAPE I/II function button

(Also switches power on if in standby.)

⑲ XR-A370 : REPEAT button

XR-A670 : Dolby** ◻ NR ON/OFF button

⑳ FREQ/STATION button

㉑ PRESET button

㉒ TAPE I Eject button (▲)

㉓ REC/STOP button

㉔ ASSES/COPY button

㉕ TAPE I cassette door

㉖ EQUALIZER button

㉗ ZOOM SURROUND button

㉘ P.BASS (DEMO) button

㉙ SET button

㉚ TAPE II cassette door

㉛ TAPE II Eject button (▲)

㉜ SOUND MORPHING JOG (S. M. JOG)

㉝ PHONES jack (Headphones)

㉞ TIMER/CLOCK ADJ button

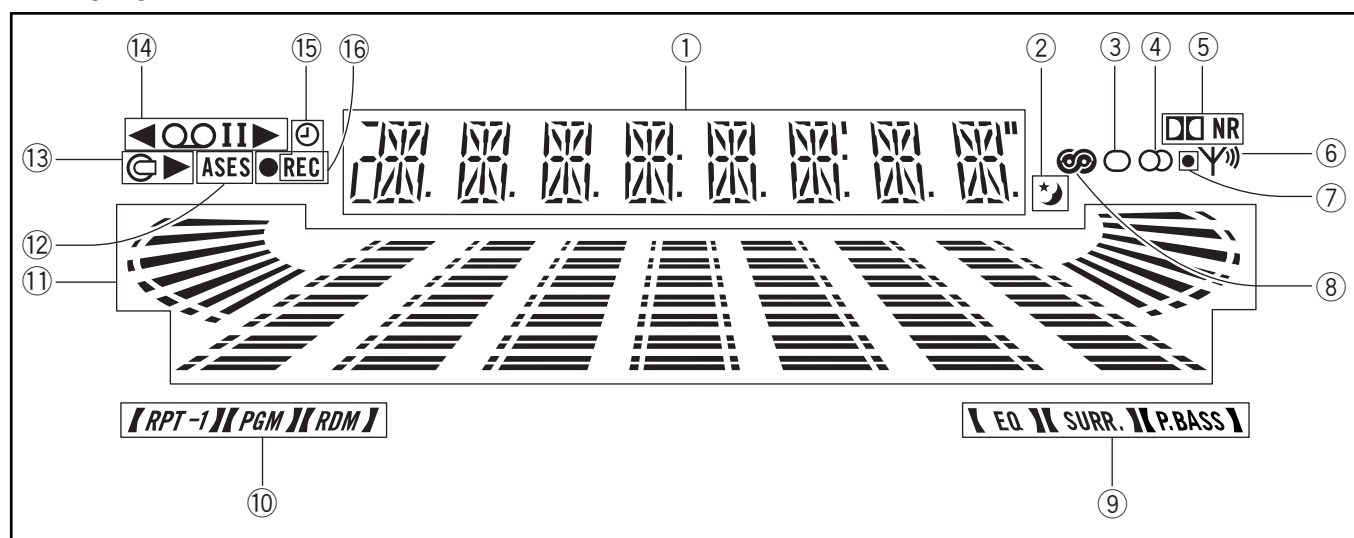
㉟ DISPLAY button

- * The functions of some buttons changes depending on the input. To learn about the different functions see the page numbers in parenthesis.

** Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

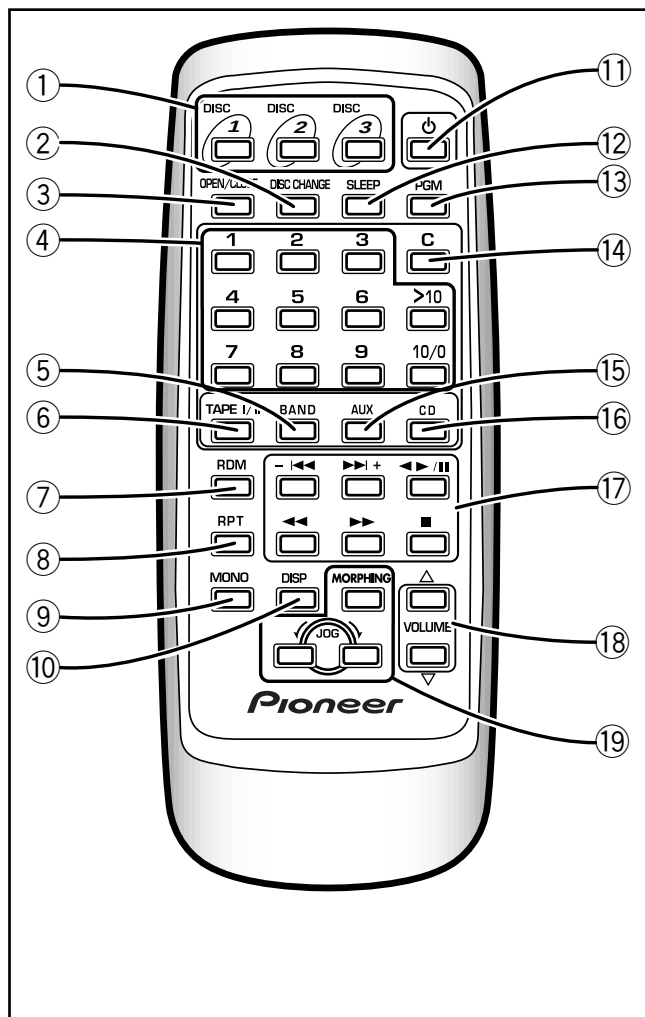
• "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

■ Display Section



- ① Displays a wide range of operation status indications.
- ② Lights during Sleep Timer operation.
- ③ Lights when the MONO mode is selected.
- ④ Lights during FM stereo reception.
- ⑤ Lights when Dolby NR is on. (XR-A670 only)
- ⑥ Indicates tuner reception status.
- ⑦ Lights when BEAT CUT 2 is selected. (XR-A670 only)
- ⑧ Lights when the RDS mode is selected.
- ⑨ Indicates SOUND MORPHING status.
- ⑩ Indicates CD function status.
- ⑪ Indicates Audio level.
- ⑫ Lights during ASES operation.
- ⑬ Indicates CD play status.
- ⑭ Indicates TAPE play status.
- ⑮ Displays timer function indications.
- ⑯ Lights during recording.

■ Remote Control Unit



① DISC select buttons (1-3)

② DISC CHANGE button

③ OPEN/CLOSE button

④ Digit (1-9, 10/0, >10) buttons

⑤ BAND button

Use to switch between FM and AM bands.



⑥ TAPE I / II function button

⑦ RDM button

⑧ RPT button

⑨ MONO button

⑩ DISP button

⑪ STANDBY / ON button

⑫ SLEEP button

⑬ PGM button

⑭ CLEAR button

⑮ AUX function button

⑯ CD function button

⑰ CD/TAPE/STATION (up, down) operation buttons

● CD operation buttons

(Play/Pause ►/|| , Track search ◀◀◀▶▶▶, Stop ■, Fast ◀◀◀▶▶▶)

● TAPE operation buttons

(Play ◀▶ , Music Search ◀◀◀▶▶▶, Stop ■, Fast ◀◀◀▶▶▶)

(The XR-A370 do feature the Music Search ◀◀◀▶▶▶ function.)

● TUNER buttons

+ Move to the next station.

- Move to the previous station.

◀◀ Frequency down.

▶▶ Frequency up.

⑱ VOLUME ▲ (up), ▼ (down) buttons

⑲ SOUND MORPHING MODE button & SOUND MORPHING JOG control buttons

8.2 SPECIFICATIONS

Continuous Power Output

XR-A370 (RMS)	100 W + 100 W (1 kHz, T.H.D. 10 %, 6 Ω)
XR-A370 (DIN)	65 W + 65 W (1 kHz, T.H.D. 1 %, 6 Ω)
XR-A670 (RMS)	140 W + 140 W (1 kHz, T.H.D. 10 %, 6 Ω)
XR-A670 (DIN)	85 W + 85 W (1 kHz, T.H.D. 1 %, 6 Ω)

● Above specifications are for when power supply is 230 V.

Music Power (DIN)

XR-A370	146 W + 146 W
XR-A670	220 W + 220 W

● Above specifications are for when power supply is 230 V.

FM/AM Tuner section

FM tuner section

Frequency Range	87.5 MHz to 108 MHz
Antenna input	75 Ω unbalanced

AM tuner section

Frequency Range	
with 9 kHz step	531 kHz to 1,602 kHz
with 10 kHz step	530 kHz to 1,700 kHz
Antenna input	Loop antenna

CD section

Type	Compact disc digital audio system
Wow and Flutter	Limit of measurement (±0.001 % W.PEAK) or less (EIAJ)

Cassette deck section

Systems	4 track, 2-channel stereo
Heads	Recording/playback head x 1 Playback head x 1 Erasing head x 1
Motor	DC servo motor x 1
Tape type	
XR-A370/KUCXJ	TYPE I (Normal) tape
XR-A370/MYXJ, XR-A370/NVXJ, XR-A670	TYPE I (Normal) tape / TYPE II (HIGH/CrO2) tape

Miscellaneous

Power Requirements	AC 220-230V, 50/60 Hz
Power Consumption	
XR-A370	150 W
XR-A670	170 W
Power Consumption in standby mode	1 W
Dimensions	270 (W) x 320 (H) x 336 (D) mm
Weight (without package)	
XR-A370	8.3 kg
XR-A670	8.8 kg

Accessories

Operating instructions	1
Remote control unit	1
Size AA/R6P dry cell batteries	2
FM antenna	1
AM loop antenna	1
Power Cord	1

NOTE:

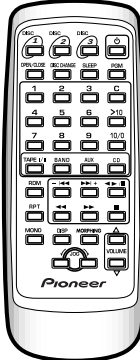
Specifications and design subject to possible modification without notice, due to improvement.

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

Accessories

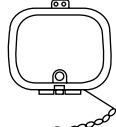
① Remote Control Unit × 1
(CU-XR060 : XZN3067)



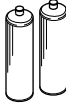
② FM Antenna × 1
(MYXJ and NVXJ Types : ADH7005)
(KUCXJ Type : ADH7004)



③ AM Loop Antenna × 1
(XTB3001)



④ AA/R6P Dry Cell Batteries × 2
(VEM-013)



⑤ Power Cord × 1
(MYXJ Type : ADG1154)
(NVXJ Type : ADG1156)
(KUCXJ Type : ADG7022)

